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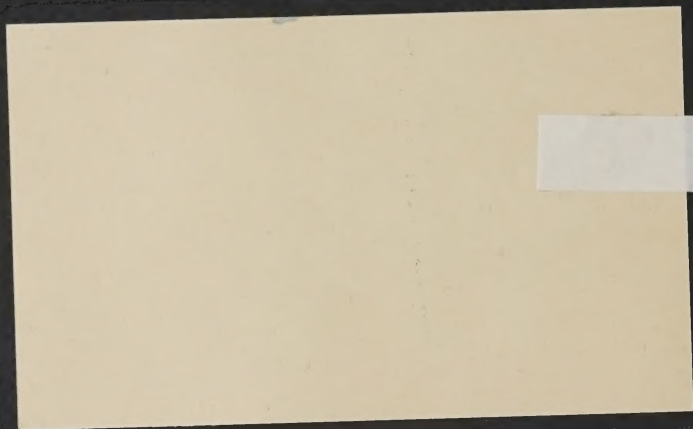


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COVERLAND

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MAGAZINE

January, 1920



Western Cattle and Sheep Herders Now Share the Splendid Highways of Cloverland With the Automobile Tourist.



Bought by H. C. Lookabaugh, of
Watonga, Okla., for \$100.00



Sold by H. C. Lookabaugh, of
Watonga, Okla., for \$16,000.00

Today's Bull Brought 160 Times the Price Paid for the Foundation Animal

A dozen years ago an Oklahoma stock breeder paid \$100 for a pure-bred Shorthorn bull for foundation stock.

A stiff price, he thought.

Last spring from his herd he sold to another breeder a pure-bred bull for \$16,000!

And the buyer was well satisfied and he had received his full money's worth.

Both of these bulls were pure-bred animals of the same breed. *Yet one sold for one hundred and sixty times as much as the other.*

What caused this great rise in values in so short a time?

In each instance the price was based on the intrinsic value of the animal—plus the ability to transmit this value.

Stockraisers are willing to pay high prices for bulls that can transmit to their descendants the kind of carcass that has a maximum proportion of valuable cuts. Armour and Company pay higher prices on foot for such beef animals and the producer is willing to pay for the right kind of sire to produce them.

If a sire is to beget other animals capable of transmitting this valuable trait, then he is worth sums perhaps greater than this breeder paid. If he sires top grade market animals, the question of whether a bull is worth \$300 or \$3,000 depends on the number of calves he can annually sire.

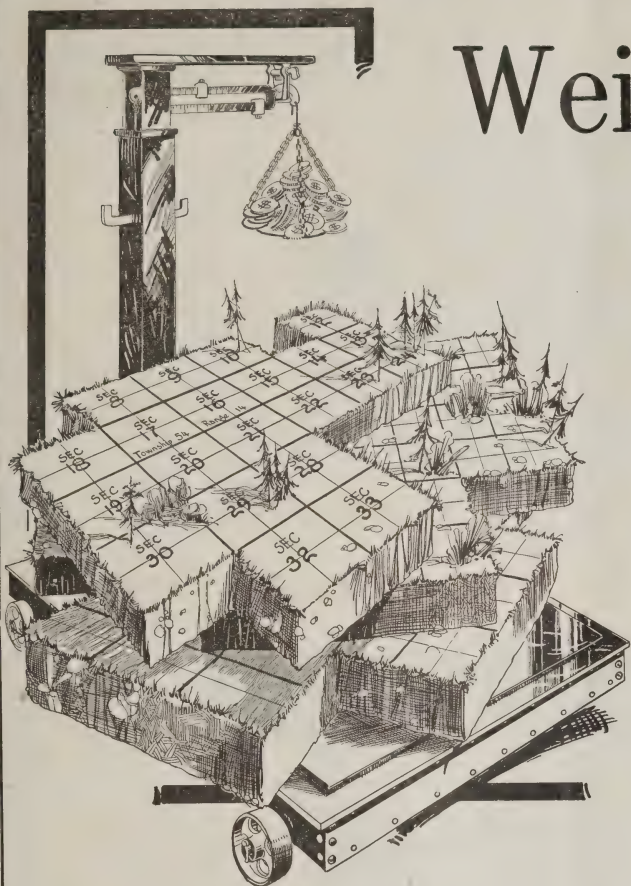
A highly developed organization like Armour and Company helps to maintain a constant profitable market for the producer. At the same time the consumer is assured a constant ever-fresh supply of meats and meat products.

***Armour and Company want
to help you in this endeavor***

To assure profitable returns increased production of better cattle is urged. Larger volume means greater opportunity for you to profit.

The growth of the Armour institution is the result of success in extending the markets for the American producers, improving the conditions of marketing, and encouraging the breeding of better meat animals.

ARMOUR AND COMPANY
CHICAGO



Weighing the Evidence

Would you buy an automobile from a man who refused to let you ride in it and try it out?

NORTHERN MINNESOTA land owners believe in their lands and are ready to let the western grazers try them out for themselves without charge. Large blocks of land are yet to be had for extensive grazing operations.

What is the future of your present range? If you expect to make a change, now is the time.

*Write us
for further
particulars*

FRED D. SHERMAN

Commissioner of Immigration

STATE CAPITOL

::

ST. PAUL, MINN.



Service that Satisfies

It is what we aim to give every client, whether shipper of stock or purchaser of feeders. Thirty-three years' experience justifies us in the use of this slogan—thirty-three years of building and bettering our organization.

Keep posted. Our 16-page weekly market news review, the Live Stock Report, is free.

CLAY ROBINSON & CO.

CLOVERLAND

MAGAZINE

REGISTRATION OF TITLE APPLIED FOR TO U. S. PATENT OFFICE

Published Every Month at Menominee, Michigan

OL. XIII No. 1

MENOMINEE, MICHIGAN, JANUARY, 1920

\$1.00 A YEAR, 10c THE COPY

An Editorial Talk With CLOVERLAND Readers

By F. W. LUENING

WE HAVE been developing a country. Settlers—men and women—were our greatest need. We wanted to attract them. So we have been saying much about our land and its fertile acres.

Older communities heard us tolerantly. Not everybody believed us. The praise we sang was called "just booster stuff" by a few. Perhaps it was. But ours was an elemental struggle. We had to use primitive methods. Apparently we have been justified. Today farm homes stand where the wilderness ruled. Cattle graze and sheep dot the hills. Industries thrive in our cities.

The country we have called Cloverland is still a new country. But it is no longer a primitive one. Its farmers have achieved. They have taken their place with other farmers in other sections. They are today developing *agriculture*—not only a country.

That being true, these farmers are entitled to a strong, agricultural magazine. It must bring them the information they need on their each forty, or eighty, or quarter section.

We all are—and rightly so—most interested in our own particular farm. We expect our farm journals to help us make our farm successful; to help us solve our problems; to bring to us the experiences of others, on similar farms, in other parts of the country.

A few men think little, narrow thoughts. They are beset by little jealousies. They are fearful that some of the good may get away. They want to hold everything close, lest their neighbors profit thereby.

But that isn't the spirit of the North Country.

Real men go clean as the northern snows. They take courage from the northern blizzards. They are fair as the northern forests. They learn trust under the stars of our northern nights. And they remember the generous sweetness of our northern clover fields, and the warmth of our northern sunshine. In that spirit they treat with other folks. They join with others in their pleasures and their problems, and together work solutions—as MEN, believing in mutual helpfulness, and sure in their faith in each other.

That is the spirit of the North Country.

It is in that big, broad spirit that the CLOVERLAND MAGAZINE wants to talk to its readers today. It is with that spirit that it wants to come to them each month. The Magazine wants no part in selfishness

nor small provincialism. Agriculture is too big for that. It wants to bring Cloverland folks together. It wants them to join with other folks, in neighboring states. It wants to bring sound, practical agricultural information into Cloverland. And it wants to take Cloverland experiences and methods to others, in other states, that they, too, may be helped.

It is on this basis that the Magazine is conducted. It wants its readers to share with it the hope that it will rapidly become the strongest, broadest, most generously helpful agricultural magazine in the whole north United States.

It wants to get intimately acquainted with every reader. It wants their suggestions; and if any reader has an especially hard problem to solve it wants him to freely ask the Magazine's aid.

We're all home folks, together—whether we're farming in Michigan or Maine; in Minnesota or Ohio. So let's get well acquainted—giving and taking all the help we can.

Now let's turn to other matters that are having some effect upon agriculture.

A lot of folks have tried to analyze the world's troubles. It seems to us that the great North Country itself gives us the real answer.

In the depths of her forests and in the heart of her frozen lakes the Northland is at *work*!

Steadily she is piling her snows. Surely she is sheltering her creatures. Quietly she is molding her ice.

Deep in the earth she is fashioning plants for a coming summer. In the spring she will send up her grasses, open her blossoms, expand her leaves.

Yes, the North Country is at *work*!

She isn't quibbling over methods. She hasn't stopped working while she seeks an easier way to get her work done. She isn't looking jealously out, wondering whether others are getting quicker returns, for lesser efforts.

No—the North Country is using her time-tried methods. She changes them slowly and sanely. She devises new ways by evolution, not revolution. Nor does she tolerate discontent nor idle theories in her creatures. She has made the squirrel for the trees, and the wolf for the hunt. The squirrel and the wolf know it. The squirrel doesn't hunt game nor the wolf climb trees.

All of which means that in *work*—plain, old-fashioned *work* lies the solution of the world's problem.

(Continued on page 44)



F. W. LUENING, formerly executive secretary of the Milwaukee Association of Commerce; in charge of that organization's State Development work, and secretary for its Land Commission, becomes vice-president and takes editorial control of the Cloverland Magazine with this issue.

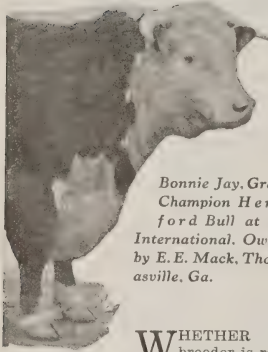
Mr. Luening gained his technical, agricultural education at the University of Wisconsin. He followed it with practical experience—first on one of Wisconsin's foremost dairy farms, where registered cattle were bred; then in the great fruit orchards of Oklahoma; later on the southwestern sheep ranges, and finally on the cattle ranges of Utah and Wyoming.

Mr. Luening gained his editorial experience as City Editor for two of Milwaukee's largest newspapers. He has written for, and issued, several Milwaukee magazines.

The publishers feel that Mr. Luening is eminently qualified, both from the editorial and agricultural viewpoints, to give Cloverland readers a magazine that will be equalled only by the greatest national publications. They are confident that the Magazine under Mr. Luening's guidance, will become a constantly greater, more important, and more interesting factor in the agricultural advancement of its readers and the nation.

Roger M. Andrews
Publisher.

CLOVER LAND



Bonnie Jay, Grand Champion Hereford Bull at the International. Owned by E.E. Mack, Thomasville, Ga.

THOROUGHBREDS!

By A.W. Hopkins
Secretary Wisconsin Live Stock Ass'n
and Director of Live Stock Journalism, University of Wisconsin.

ful breeders everywhere join in urging thoroughbred sires on every live stock breeder's farm.

L. M. Scott, breeder of Hereford cattle, thus outlines his own experiences:

"Being one of the scrub bull's worst enemies I am going to try to present to his patrons a few figures that ought to start them to studying if they have any regard for their purses.

"In the fall of 1915 I took the calves away from two of my cows, drying them up at the same time. One was a scrub and the other a high-grade Hereford. These two cows were fed together on silage and hay until May 10th, when they were turned on good blue grass pasture, neither being in calf. I took them out the first week in August and shipped them with my steers. The scrub brought \$38.65 and the high-grade brought \$110. The difference, \$71.35, was due entirely to breeding. The first thing the stockman must bear in mind is that the bull is half the herd if he is a good one, and much more if he is a poor one, regardless of how good or poor the cows may be. With the right type of a pure bred bull at least half of the gap between the scrub cow and the grade, in the case just mentioned, could have been closed. This would have meant a little over \$35.00 and on a carload of twenty head it would have amounted to \$700.

"In far too many instances farmers think that breeders are 'holding them up' when they ask one-half or one-quarter of that amount for a pure bred bull that will actually make such an increase for them. But they are really holding themselves up by continuing to use a scrub. A good bull is cheaper at any price than a scrub

as a gift. Get your breed and stick to it and before you realize it you will be culling your grades closely and replacing them with pure bred.

"When I began in the live stock business I had all the colors in the rainbow in my herd of cattle, and some thrown in. When I went to Chicago with my first bunch of cattle, I sat on the fence and heard every buyer that came along say: 'There is a bunch of Wisconsin dogies,' and I determined at that time that such would not always be the case. If you took notice of the last Baby Beef Show you will see that there has been some progress made on our farm. The cattle that my son and daughter had at this show were the last of the grades on our farm. We began in 1907 to cull and replace with pure bred, so that now we have a pure bred herd of 100 head."

Mr. Scott's experience is typical of many others.

Eben E. Jones, La Crosse County Shorthorn breeder, says:

"Our first pure bred herd sire was what breeders call a farmer's bull. Although given no better care or feed, his calves proved to be a great improvement over our scrub calves; they developed much faster, and were better shaped. When ready for market we found that our grade calves commanded nearly double the price of our scrub stock. The grades outweighed the scrubs by nearly 400 pounds per head, when they were marketed at two years of age.

The grades weighed on the average of 1,100 pounds, and sold for \$3.75 per hundred pounds; the scrubs weighed 725 pounds, and sold for \$2.00 per hundred pounds.

At the last International Stock

Show we sold two pure bred steers sired by our present herd sire for highest prices ever paid for Wisconsin steers at the Chicago yards. One was calved Jan. 4, 1917, weighed 1,340 pounds, sold for \$28.00 per hundred pounds, bringing \$375.20; the other was calved Sept. 6, 1917, weighed 1,250 pounds, sold for \$22.50 per hundred pounds and brought \$281.25.

Frank E. Fox, secretary of the Waukesha County Guernsey Breeders' Association, offers these figures:

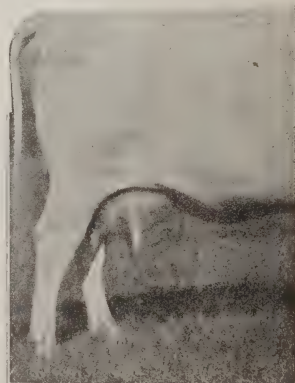
Increase in production of butter-fat, Daughter over Dam.....	50 lbs.
Value of increase each year.....	\$ 15.00
Increased cost of feed.....	6.00
Increased profit each year.....	9.00
Increased profit in six years.....	54.00
12 Heifers worth saving.....	648.00
Value of sire's influence on first year's calves.....	648.00
Value of sire's influence on three years' calves.....	1,944.00



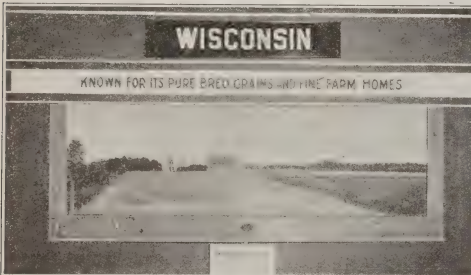
Grand Champion Shorthorn Herd at International

The bull's influence in three years amounted to a total of nearly \$2,000.00. A calf ought to have more behind it than a tail—unless it is a tale of pedigreed accomplishment. This was never more strikingly demonstrated than in Fond du Lac County, where a comprehensive survey of cattle conditions was recently made, which showed that this particular Wisconsin community, had only twenty-six per cent pure bred bulls. And this in the state recognized as the nation's foremost dairy center!

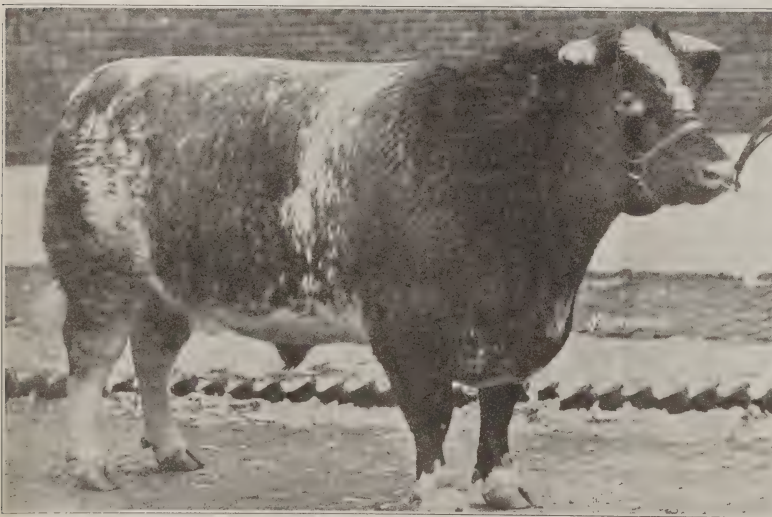
The results of the county and live stock agent's census, which showed that out of every hundred bulls used in the county, thirty-seven were scrubs, thirty-seven grades and twenty-six pure bred, awakened the progressive farmers and stock owners of



Rosa 4th, Grand Champion M. S. cow at



Wisconsin's Exhibit at the 1919 International Live Stock Show, displayed under the direction of B. G. Packer, Wisconsin's Immigration Commissioner.



Lespedzia Collyne, Grand Champion Shorthorn Bull at the International Live Stock Show. L.W. Little, owner.

CLOVER LAND

What the Pure Bred Sire Means to the Farmer in Dollars, Cents and Satisfaction

Fond du Lac to the urgency of improving existing conditions or experience the inevitable stagnation of their chief industry. The hand-writing on the wall was plain. There was just two courses to pursue.

If—

The farmers were to increase production, make their living conditions

it, was not to be classed in the "slacker" category. They realized the imperative need of changing conditions—which meant nothing more than exchanging their grade and scrub sires for others of the pure bred variety. It did not take them long to recognize that their own future was at stake. Immediately steps were taken to promote their industry on a more profitable scale than ever before and the results have been so striking that the conditions of Fond du Lac County of but a few months ago are already being referred to us as the "horrible example."

Plans for an effective campaign were fostered by the three leading breeders' associations in Fond du Lac County, the Guernsey, Holstein and Jersey. The initial step was the holding of meetings at the instance of the local breeders' community organizations when the specific program was outlined. Subsequently a cattle census of the county was taken, in which the school children, the teachers and superintendents lent invaluable assistance.

Directing the work was a committee constituting officials of the breeders' associations in Fond du Lac, the county agent and representatives of the Wisconsin Live Stock Breeders' Association. Shortly after definite data had been compiled, offers of trades were made to every farmer and stock owner in the county. These were to the effect that the breeders' associations would give in exchange for a scrub or grade bull, a pure bred bull without expense to the farmer. It was a bona fide fifty-fifty trade. All the immediate advantages were with the farmer, who was returning a scrub or a grade bull in favor of a pure bred sire minus any additional expense to himself. However, the transactions were an investment for the breeders who foresaw that within the coming years they would have better material to draw from, and their gain then would more than compensate them for the losses incurred now.

But—

The progressive Fond du Lac community, with its long history of progress and agricultural endeavor behind

and urging a personal interview of the owner to discuss the proposition. The only conditions of the trade were a requirement whereby the farmer was to keep the pure bred given in exchange for scrubs and grades at least two years and that the latter be of breeding age. All that the breeders got in exchange for the young bull was the grade or scrub which was disposed of for beef, bringing barely 60 or 80 per cent of the value of the pure bred given in the trade.

The results in Fond du Lac from this campaign have been well-nigh astonishing, but no more than can be done in any other community of the state. Since the "Better Bull" campaign was inaugurated there, forty-three pure bred bulls have been added to Fond du Lac's already rapidly increasing total. Incidentally, or perhaps essentially, thirty-eight of these were secured by farmers who had never before had pure bred bulls among their herds.

Already marked changes in the community atmosphere are evident. In view of largely increased profits, important farm improvements are under way in many instances, while others are in contemplation. Merchants are bound to figure in the inevitable prosperity through the larger purchasing abilities of high producing cows. The entire community will be the beneficiary.

What has been done in Fond du Lac is possible elsewhere. Breeders' associations everywhere are prepared to render their full measure of assistance. Similar campaigns should be inaugurated. There is no question but that a calf should have more behind it than a tail.

How widespread is the belief in the thoroughbred sire is indicated by the following public statement circulated through Wisconsin, over the signatures of nine secretaries of breeders' associations:

"Wisconsin will continue



Idolmere, grand champion Aberdeen Angus bull at International; Owned by Dr. J. J. Huggins, Dan-dudge, Tenn.

On its way home from the International this bull, valued at \$50,000, was so badly burned in a fire in the car that he died in a veterinary hospital.

its campaign to replace grade and scrub sires with pure bred.

"As the campaign goes on there will be more and more question as to where to get enough good bulls. To meet the needs this winter we are asking:

"First—The breeders to regularly supply the secretaries of the Wisconsin Live Stock Breeders' Association, Madison, with a list of bulls which they have to offer.

"Second—The breeders to supply the secretary of the state breeders' association with a duplicate of this list.

"Such lists should include not only the number of bulls for sale, but also

(Continued on page 54)



Owned by Henry Brown, of Sharksburg, Illinois.

better, insure their own prosperity, the elimination of grade and scrub sires was an immediate necessity. The scrub and the grade must go; the pure bred must supplant them.

If—

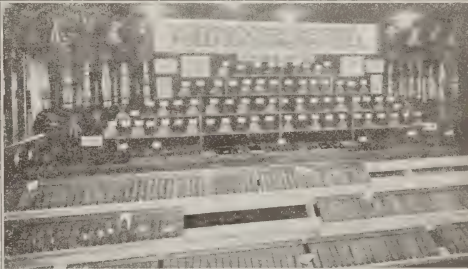
The farmers were satisfied with conditions, satisfied to let matters "drift", satisfied to let "well enough alone," satisfied to pursue the course of least resistance, satisfied with their present facilities for providing for their families then—the grade and scrub bulls would be continued in service—the pure bred would have no place.

But—

The progressive Fond du Lac community, with its long history of progress and agricultural endeavor behind



the International. Owned by H. E. Tener



Minnesota's Exhibit at the 1919 International Live Stock Show, Chicago, displayed under the direction of Fred D. Sherman, Minnesota's Immigration Commissioner.



Ceremonious Sultan, Grand Champion Polled Shorthorn Bull at the International; Seaman Stock Farm, owners

CLOVER LAND



Cheever Buckbee Has Made a Success Wintering Sheep in Upper Michigan for Several Years.

ON THOUSANDS of farms flocks of sheep will be wintered. These flocks range in size from twenty-five to several thousand.

During the past summer approximately 174,000 western sheep were moved from the ranges of Wyoming, Montana, Utah, and other states into the Great Lakes basin. Most of them were pastured in Minnesota, Wisconsin and Michigan. Many farmers took bunches of these sheep to winter over. There are also many other farmers who regularly make a practice of wintering sheep. Some westerners decided to winter their sheep in the new grazing country.

The suggestions of winter feeding which follow are taken largely from publications compiled by P. G. Holden, director of the Agricultural Extension Department, International Harvester Company.

Professor Holden received more than 5,000 letters from practical sheep men in nearly every state in the union. From them he compiled the following facts:

Of the farmers reporting, 3,750 live in Illinois, Ohio, Michigan, Pennsylvania, Iowa, Missouri, New York, Indiana, and West Virginia; 1,250 reports come from scattering states. Reports from those having range flocks in the West have not been considered.

Of the farmers reporting, 4,100 had farms of less than 200 acres.

Of the 5,000 farmers reporting, 4,250 had from ten to fifty ewes; 4,000 farmers had ewes of the mutton breeds, the others had Rambouillets and Merinos.

Two thousand seven hundred fifty farmers sold their lambs direct from the ewes without weaning them. The selling age was from three and one-half to five months.

One thousand, five hundred fifty farmers fattened and sold the lambs before they were one year old, or as soon as they were shorn of their first fleece. The others reporting either sold the lambs for feeders or matured them on the farm.

Two thousand, two hundred fifty farmers kept a few of the best ewe lambs each year for breeders.

Corn and oats were the grain feed for the ewes on practically all corn belt farms.

Two thousand five hundred farmers bought wheat bran and oilmeal to feed to ewes before lambing time and while suckling the lambs.

Clover hay and alfalfa hay was the choice of all for roughage for ewes. Many fed straw and fodder as a part of the roughage ration.

One thousand two hundred fifty farmers fed silage to their sheep.

One hundred fifty farmers reported death of sheep from feeding mouldy silage.

An average of \$4.69 a year was given as the cost for feeding a ewe, together with her lamb, until it was sold.

Each ewe returned an average income of \$11.15 from the sale of the ewe's fleece and the sale of the lamb. (These figures were for 1916).

Three thousand farmers had lamb creepers and fed the lambs separate from the ewes.

Four thousand twenty-five farmers did not feed the ewes any grain in summer.

Four thousand five hundred farmers advised having open sheds for the sheep, except at lambing time.

One thousand five hundred farmers reported trouble or loss from stomach worms.

Where only a few sheep were kept and changed from one field to another no trouble from stomach worms was reported.

The remedies given for stomach worms were: First, Change of pasture; second, gasoline treatment; third, worm powders.

All but eighteen of the 5,000 reported that "dogs" were the main cause of the scarcity of sheep.

The right shelter is the first need of sheep in a northern climate.

A. R. Runyan of Rochester, Mich., says:

"Don't keep sheep in a tight build-

WINTER CARE of SHEEP

Winter Rations for Northern Sheep

PROFESSOR P. G. HOLDEN is a recognized agricultural expert known through a large part of the United States because of his university connections. It is said that he assumed control of the agricultural extension department of the International Harvester Company with the understanding that he should be free to conduct the work on a purely educational basis. In other words, he desired to advance the cause of agriculture—and not merely the cause of any particular manufacturer of agricultural machinery. On this basis Professor Holden has contributed many volumes to the agricultural literature of the day. He has directed, for his company, the expenditure of hundreds of thousands of dollars for booklets, pamphlets, motion picture films, lantern slides, and for lecturers and teachers.

ing. Better have an open shed. All they need is a roof and wind break. Don't compel them to eat musty or spoiled feed. Don't compel them to drink tainted water. Don't let them run to hay or straw stacks and get their wool full of chaff, and then have to take less for it."

Peter Tubbs of Seymour, Wis., says: "Have been keeping sheep for forty-five years. A cheap shed is better than a barn basement for shelter. Keep them separate from cattle, horses and hogs. They do not need much attention, but the better you treat them the larger will be the returns."

Professor Holden, in his discussion of profitable sheep management offers the following plan for keeping a bunch of ewes for one year commencing November first:

"Beginning in Fall, give them a light grain feed once a day. This can be one-half ear of corn to each ewe, fed in a wide flat-bottomed trough allowing the ewes to shell the corn themselves. Oats can be fed if they are grown on the farm.

"The amount of grain to feed in the Fall depends on the pasture and condition of the ewes.

"All grain troughs for sheep should have flat bottoms. V-shaped troughs allow the sheep to get too much feed in their mouths at once and they will

waste much of it when changing places at the trough.

"If early lambs are wanted the ewes will be bred before November first.

"Ewes bred November first will begin lambing about April first.

"It is the practice of many farmers to breed their ewes in November, so that the lambs are born in April, when the weather is getting warm and the pastures are beginning to furnish grass for the ewes.

"It does not take as much feed or shelter for April-born lambs as for earlier ones, yet there are good sheep men who claim that where there is warm shelter, plenty of clover or alfalfa hay and good silage to feed the ewes, the lambs are more profitable if born in February or March.

"In Winter and early Spring the outdoor farm work is not so urgent. More time can be spent caring for the lambs. Early lambs learn to eat hay and grain before they are turned to pasture, thus getting a start ahead of later lambs. This makes them better able to withstand parasites and they can be fattened for earlier and better markets.

"The ram can be allowed to stay with the ewes until winter when he should be taken away from them. If he stays with the ewes through the winter he will eat too much, get 'bossy,' and bunt the ewes about, often causing abortions.

"Sheep should have shelter. The important part of this shelter is the roof. It can be an open shed on one or more sides, and there should be a fence or door to keep the sheep in, as they will not always go in out of storms, especially if the storm comes at night.

"Turnips, rape, soy beans or vetch sowed in the corn at last cultivation will often furnish much fall and early winter feed.

"Early-sowed rye makes a good fall, winter, and spring pasture.

"In winter sheds and racks for feeding hay must be provided.

"There is no better roughage for sheep than alfalfa or clover hay. Next to it is soy bean and pea hay. Early cut oat hay is excellent roughage for ewes.

"An ideal winter feed for breeding ewes is from three to five pounds per day of good corn silage to each ewe, and what clover they will eat up clean. The silage should be made from well-eared corn. If there is no alfalfa, clover or other protein roughage, they should have some oil meal, cotton seed meal, wheat bran, or a mixture of these to furnish protein. Corn fodder can be fed to the ewes in racks, shredded or cut, or whole stalks can be scattered on the frozen ground (better out on the pasture), where they can pick the blades off.

(Continued on page 53)

SHEEP MARKETING

By NAT P. ROGERS

President South St. Paul Live Stock Exchange

IN the first place sheep well bought are half sold. That is fundamental in every sheep growing or marketing operation. Aim to buy in the fall of the year when the market runs are heavy and prices are the lowest. If you wait until spring you will have to pay a much higher price. Before buying you should provide sufficient forage and good, comfortable barns.

Start breeding your ewes in December so that your lambs will arrive in April or May. Get lambs ready for market as early as possible. In this country, you should be ready to market by September or the first part of October. The best sellers are lambs weighing from sixty to seventy-five pounds on the hoof. They should not be too fat but carry enough flesh to make them attractive.

In taking care of sheep, it is important to see that they have

plenty of water. About three pounds of hay and one-half to one pound of grain will be sufficient feed for a sheep per day. Feed good clover hay, never timothy. As it is a dangerous feed for sheep, and don't overlook the water question.

I see no reason why Northern Minnesota and Wisconsin should not become great sheep growing regions. You have the forage in abundance and your natural resources are well adapted to the industry.

South St. Paul is willing and ready to work with you on this line, and we invite you to keep in touch with our market. Every commission man will do his best to see that you get the best possible service and price. Our market is growing better every day, and with the new facilities and broader outlet, there is no reason why you should not market your sheep at South St. Paul.

CLOVER LAND

Converting the Fleece Into the Wool You Wear

By M. F. JAMAR, JR.

A BIT of cloth—whether it be woolen or cotton, linen or silk—is one of the most interesting evidences of man's climb from the days of savagery to the Twentieth Century civilization.

The date when prehistoric man discarded pelt for the woven fabric of wool or linen marked the origin of the textile industry. Wool was probably the first material spun by early man, for flocks and herds and pastoral existence were the first upward step to civilization from the primitive condition of savagery.

It is interesting to note that the primitive sheep were covered with hair and the wool which is now characteristic of them was then but a downy undercoat. As time progressed and the art of spinning and weaving developed, the food value of sheep decreased as their wool value increased, and the hairy flocks were bred out and sheep with true wool succeeded them. Even now the growth of hair among the wool of old or neglected sheep is an indication of a return to the original condition.

Beginning of the history of wool as it pertains to this country, dates back to 1609 when sheep were first introduced into America at Jamestown. The Colonial government of all of the colonies encouraged the raising of sheep. President Washington imported the best breed of sheep and promoted the bringing to this country of the most experienced spinners and weavers.

The development of the sheep industry in this country was rapid from this date. Different strains and breeds of sheep were introduced from time to time, and as the country grew, the sheep industry spread to the large ranges of the west, from which the largest percentage of our wool supply comes.

Not over twenty-five years ago the majority of the wool which was consumed in the United States was grown east of the Mississippi River. Today over three-fourths of it is grown west of the Mississippi River, and today over 95 per cent of wool which is woven into cloth and garments, is woven in the states east and north of Pennsylvania.

The reason for the growth of the wool industry toward the west was:

First—The settling up of the eastern section and the menace to the industry from dogs, and,

Second—The opportunity offered in tremendous areas of waste land in the claims and forest reserves.

This condition, however, is again rapidly changing with the development of the west, the incoming of homesteaders who have taken up claims in this vast area where formerly the sheep were pastured.

Production and Consumption of Wool in This Country.

For the last ten years the production of wool in this country has been decreasing with the exception of a very slight increase for 1919. This ratio of decrease has been about equal to the ratio of increase in population.

It is estimated that this year the United States will require some 700,000,000 pounds of wool for its indus-

MR. JAMAR is secretary and general manager of the mills and factories of M. F. A. Patrick & Company at Duluth. In this story he has sketched the history of "a bit of cloth" in a most entertaining manner. Those who raise sheep, who produce or may produce wool, and in fact, every one of us—because we all use wool—should read Mr. Jamar's story.

tries, and only one-half of that amount is produced in the United States today. The other half is brought from England, Australia, New Zealand, and South America, and even China.

One startling fact developed during the war when we were operating on a Government contract for the Navy department wherein the wools which we purchased for this contract came from no less place than Capetown, South Africa.

Wool Grades and Prices.

Considerable confusion arises in the minds of the average person in the matter of wool, as they do not differentiate between what is known as farmers' wool, or greasy wool, and the clean scoured article. The average wool today as produced in this country after it is washed, shrinks from 50 to 60 per cent, and in some cases as high as 70 per cent. On a 50 per cent shrinkage basis the price of the scoured wool would be more than doubled in value over that of the greasy, or farmers' wool. Wool therefore that has been purchased at 60 cents per pound, without any handling charges or other expenses of grading, sorting, handling, scouring, transportation, be exactly doubled in value, or \$1.20 per pound, and higher shrinkage wools would increase that much more in proportion.

The wool might be divided into three general classifications, the combing wools suitable for worsted yarn, the clothing wool which take in the shorter wools, and the carpet wools which include the coarse low grade fleeces. This again may be divided into several classifications which differentiate between the relative diameter of the fibre of the wool, namely, fine, medium, and coarse. These classifications are subject to finer differentiations and gradings.

During the war the great demand was for what was known as medium wools and the fine wool which went into the finer suitings and worsteds did not command the relative price that they are today. The demand today is for the very fine wools for fine suitings and worsteds, and the coarser wools are neglected. The result has been a tremendous demand for certain types of wool over others. Fine wools on a scoured basis, that is, clean scoured wool, are bringing from \$1.75 to \$1.80 per pound, whereas the medium wools range in value from \$1.10 to \$1.20, and the coarser wools from 85 to 90 cents.

Wool Suitable for the Patrick Mill.

We have often been asked why we have not purchased certain clips of wool and the explanation is very easy. The type of goods we are manufacturing in mackinaws and overcoats calls for what is known as the medium grade of wool. Wools of a very fine fiber, for the extreme coarse ones are not suitable for our use and are particularly desirable in cer-

tain grades of cloth where a very minute spinning is desired, and the cloth is of light weight and texture. It may be put down as a general principle that the coarser the wool, the coarser must be the size of the yarn into which it is spun, and the finer the wool, that is, the finer the diameter of the fiber, the finer the yarn which can be spun from this wool. Therefore, in a fabric of very fine texture and finish, fine wools are a necessity and the same wool utilized in overcoat or mackinaw would not give the feeling or finish required.

Another reason is the character of the wool from the standpoint of its extreme length, as wool is divided into the two classifications of combing and clothing, the combing wools which are the very long wools command a higher price than the same type of fiber of wools in the shorter one, or the clothing. Therefore certain clips of wool are of more value to a worsted mill making worsted yarn than they are to a woollen mill making a woollen cloth.

Differences Between Wool, Cotton, and Other Fibers.

Each has its purpose and serves its own purpose better than any substitute. The characteristics of wool are that it is an ideal garment for warmth on account of the fact that wool is one of the greatest non-conductors of heat, whether it be wet or dry. Cotton, on the other hand, if very dry is almost equal to wool in its non-conductiveness, but when wet it is a very good conductor of heat or cold. Therefore the bodily heat radiates through a cotton, or especially a wet cotton garment, very quickly and we feel cold.

Wool itself does not generate heat but retains it. It does not transmit it on. Should you enter a cold room, place your hands on a piece of iron or brass, like the foot of a bed, then on a linen or cotton sheet, then on a real wool blanket, the contrast would be very marked, although each would be of the exact same temperature. The iron would feel very cold, as it immediately transmits the heat of the hand, the cotton or linen less cold, and the wool would actually feel warm.

Another valuable characteristic of wool is its adaptability to spinning and particularly its feeling property. By this I mean the shrinking and amalgamating of one fiber to another, a valuable process in the manufacture of cloth, as it adds to its density and its strength. Each wool fiber is covered with thousands of minute scales and when these scales are interlocked in spinning and felted together by soap and water they amalgamate, making a much stronger, closer, and warmer fabric than before the felting operation.

Wool and Worsted

The question has often been asked and considerable confusion exists between wool and worsted, and what they mean. A woollen yarn is a yarn spun from wool whether long or short, or of a medium length. In the process of carding or mixing, the fibers are shuffled,

broken up, rearranged, and in the twisted yarn many of these broken and short ends protrude from the yarn, giving it a woolly appearance.

A worsted yarn is manufactured under a different process entirely, as it is the result of a combing and drawing out process. Nothing but the extreme long wools are used; these are passed through a succession of combs which eliminate all of the shorter fibres. These long fibres are arranged laterally and gradually pulled out and drawn into a yarn retaining at all times their lateral relation to each other. The result is that very few ends protrude from the yarn and it has a smooth, slippery feel and finish. Both wool and worsted yarn are made in all grade and characters of wool, that is, worsted in itself does not define a grade of wool, but simply the method of spinning the same. There are worsted yarns made from very coarse wool, or from medium wool, or from fine, or the very extreme fine type.

What Is Shoddy?

I can hardly conclude my remark without an explanation to you of what shoddy is, and some of the other substitutes which are used in place of new wool. There are several different ones on the market and are reclaimed from different processes. Shoddy in the broad sense of the word means cloth, or yarn, torn to pieces and re-carded and the fibers reclaimed by a process of disintegration of tearing apart. Shoddy is also made from the waste of worsted mills or from yarn, or from clipping of sweaters, etc. It is a tremendous factor in the production of low grade cloths and its value must not be belittled because it serves a valuable economic place in the manufacture of certain types of cloth today.

In other words, what might become waste may be converted into cheaper materials that serve for specific purposes but do not answer the purposes or meet the requirements of virgin wool.

For instance, if the suit I have on were made from 100 per cent new wool, and should be discarded and ground up into a shoddy, it would still be wool in the sense of the word that it is the product of an animal fiber, but in the tearing apart and re-carding of it the fibers would necessarily be very much shorter than they were originally and of themselves would not make a satisfactory yarn. They would have to be blended with some more new wool to carry along the shorter fibers, and the result would be a cloth which might be termed an "all wool cloth" in one sense of the word, namely, that it was all of animal fibers and not of vegetable, but it would not be a true or virgin wool cloth in any sense of the word.

It is a very difficult matter to distinguish in a piece of cloth, after it is manufactured, the amount of percentage of shoddy in it, and the consumer in many instances is obliged to rely upon the reputation of the man selling the goods and the man who manufactured it. The best protection therefore lies in buying nationally advertised.

(Continued on page 38)



GLOVER LAND

JIM'S GROCERY STORE

over and over in his mind after she had gone.

One Saturday evening while Jim was reaching over the cracker boxes for the kerosene lamps in the window, Betty said:

"Ever thought how Elmsburg is growing Jim? Remember how they brought the power in from up on Thunder River? Ever considered how people like light?"

Through the long Saturday evening Jim puzzled over this. In the intervals between customers—most of whom were the older folk of Elmsburg—the questions came back to him.

When he had closed the store and was turning down the wicks, he muttered: "I wonder now if THAT'S what she meant."

A few days later six bright electric bulbs hung in the windows of Jim's store. When Betty dropped in that evening her quick, appreciative smile was sufficient answer for Jim.

"Folks do like light, Jim," was her comment. "And, ever notice, Jim, that they like lots of it all the time, day and night?"

She hurried away. Jim thought that over. It puzzled him some. Then he and Betty made one of their few visits to the city; he, to appease a crusty creditor, with whom George Barlow had dealt on a cash basis for forty years; Betty, to blightly add to her limited but modestly adequate wardrobe.

As together they walked past the crowded stores, Betty said:

"Ever notice how light gets business, Jim?" And she added, quite irrelevantly, "Banks help business, too, don't they, Jim?"

Jim alternated on the trip back home between worrying over his creditor's threats and puzzling over Betty's cryptic remarks. Betty chatted briskly through it all and seemed to comment, in her light way, upon the value of contact with folks, and the broadening effect of travel. Jim really didn't hear much of her conversation.

A few days later the president of the Citizens' Bank at Elmsburg was surprised when Jim Barlow walked into the office. The president had known old George Barlow and his antipathy for banks. He had known Jim as a steady-going young man, who incurred no debts, who paid cash and whose resources were centered in the old cash box under the counter.

Jim's words tumbled rather bluntly from his lips. In them, however, was a new respect. Before he left the bank he had signed a document or two, had left the contents of the cash box with the cashier, and the Barlow name appeared for the first time in fifty years on the books of the Elmsburg bank.

In less than twenty-four hours the weather-stained, paneled windows of the Barlow Grocery Store were being stripped from their frames. Carpenters were cutting into the old high front. Within the week, plate glass panels, running down to almost the level of the walk, had taken their place. Behind them a broad display space was substituted for the narrow sill-like shelves upon which old George Barlow had attempted to show

a few bushels of locally grown apples or a box or two of potatoes and onions.

Betty was briefly enthusiastic. "Light's a great thing in business, Jim. It shows folks what you've got. But have you ever thought in how many other ways you can show them that?"

This gave Jim something more to puzzle over. In the meantime the new front and the bright electric bulbs caused comment—mostly adverse. Old customers who had dealt with George Barlow since they first set up housekeeping, growled about "new fangled ideas." One or two said sadly: "It don't seem right, some how; it don't seem like the old place no more."

Several protested and threatened to withdraw their trade. This worried Jim some. A few of the younger women were coming into the store now and then, but all in all, his expenditures showed no sign of paying for themselves. Business wasn't picking up and the new account at the bank, even with its borrowed additions, was gradually sinking to low levels.

Jim studied the store. On the shelves were goods that a small part of Elmsburg knew well. They were the same goods that had always been there. Jim knew

their quality. And yet their whole appearance—their packages and labels—gave the impression of age and mustiness. While he mused before them, Betty made one of her unexpected entrances. She peeped over his shoulder and said:

"It's neither sunshine or electric bulbs THEY need; it's another kind of light."

Jim discovered what she meant a few days later. Absently turning the pages of a magazine, he saw a display of foodstuffs. It glowed in colors; an appetizing appeal came to him from the printed page. It was the same sort of food that he carried on his shelves; but it was wrapped in bright containers; its labels suggested the cheer of Christmas dinners.

It came to Jim then, that of all the groceries in his store, none were advertised brands. The labels were not appearing in Elmsburg's newspapers, in journals that neighboring farmers were reading, nor in national magazines.

As he thought this over a dull rage slowly developed: "The old skinflints," he mused. "For forty years Dad paid them regularly in cash, and in all that time they have never seen fit to spend a dollar to help Dad's business along. Well, I'm through right now! The Barlow store quits doing business with manufacturers and jobbers who are too dead to advertise."

Jim lost no time. He began a sale, at prices that would have horrified old George Barlow. It brought the old customers, who carried away the old stock of goods. Many of them came for the last time. It brought, however, many new customers—younger women and some younger men. As quickly as the old stock left the shelves Jim replaced it with standard brands, well advertised, known to all Elmsburg, and brightly and effectively labeled.

Before the close of the season the account at the Citizens' Bank was be-

ginning to climb upward. Jim was drawing upon it, rather cautiously, to pay for occasional advertisements of his own, in the weekly paper. He rather felt that they paid, though he couldn't be wholly sure. The president of the bank encouraged him, however, and Betty dropped occasional remarks that gave Jim confidence.

Then one day Jim received a consignment of grapefruit which he managed to buy at really bargain prices. Betty saw them attractively displayed in the new show window.

"General advertising's fine, Jim," she said. "But often, especially in the country, a personal touch means a lot. Country folks haven't really learned to appreciate grapefruit yet. Let's try the personal touch."

She went to Jim's desk at the rear of the store. There she wrote:

Dear May: I have just run into Jim's store—and I've found a windowful of grapefruit. The great, big, luscious things are so tempting that I'm carrying away an apronful. Jim is selling them at prices that make me suspect he robbed a California orchard—as he used to raid the apple orchards here in Elmsburg when we knew him as a boy. I'm so sure you'll like 'em that I just couldn't see them all go without your knowing about them.

BETTY.
She wrote a second letter. Jim read:



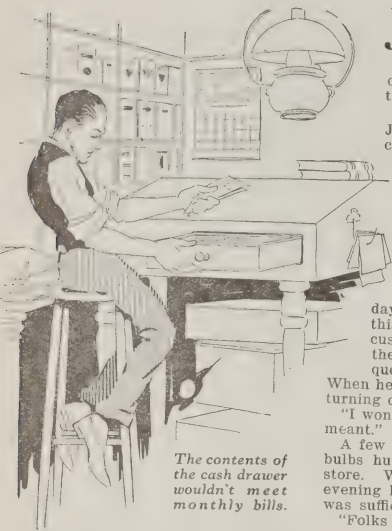
Carpenters began to tear away the old store front.

My Dear Mrs. Brown: We have just received a consignment of grapefruit, so unusually good that we want a few of our best customers to know about them. They are selling at exceptionally low prices, and are of such fine quality that we think you will appreciate our calling your attention to them. We suggest that you select one or two when you next stop at the store.

JAMES BARLOW.
"You can send the first to my personal friends," said Betty. "The second can go to all other customers. You know, ALL customers are 'best customers'. And, Jim, remember that folks everywhere are 'just folks'. It doesn't matter much whether a man is bank president or office boy—they both like personal attention. Just little, intimate, homely things will most surely get into the hearts of all of us. In business, it's not the fine store front alone that counts; nor the mahogany counters—it's the intimate, personal service that goes with them."

The greatest merchants became great because they made every customer feel that he was getting personal attention. They call it 'service'; and that includes all of those many attentions, together with everlasting courtesy that modern merchants give, and customers like, with their goods. Occasionally, telephone calls will do, to show this personal interest, especially if they are well handled; but unless one has an operator—and a mighty good one—it takes too much time. But letters, if they're well mimeographed, fill one place in advertising that can't be quite filled in any other way. And, Jim, letters like these

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The contents of the cash drawer wouldn't meet monthly bills.

BOY and man, Jim Barlow had lived in Elmsburg.

Boy and man, Jim had been in the grocery business. His career began at twelve as a delivery boy. It culminated at twenty as sole proprietor of Barlow's Grocery Store.

It was in that year that old George Barlow died peacefully in the little room over the store, where, for nearly half a century, Elmsburg had bought its foodstuffs.

Jim found the store paying well. After each long Saturday evening he took \$10 from the cash drawer under the counter. This, with the cans and boxes he took from the shelves, gave him weekly sustenance.

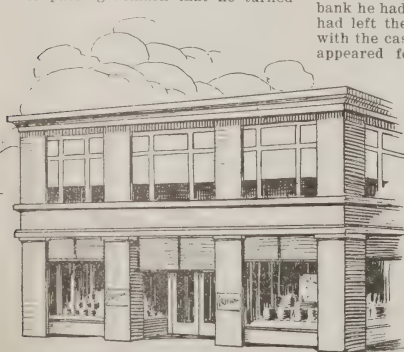
There seemed always to be enough left in the drawer to meet the bills that came to Jim, on his high stool in the corner, each month.

So Jim felt that the store gave him an adequate living and was content.

Then Jim married Betty.

Betty was attractive, clever, and sensible. Her marriage in no way changed in her a sensible appreciation of the pleasures and good things in life. So it wasn't long before Jim began to draw more liberally upon the cash box; nor had many months passed before he found that the box no longer equaled the monthly bills.

Betty didn't seem to worry. She would run into the store two or three times a day, look carelessly about, joke lightly with Jim, and run out again. But she usually left with Jim some passing remark that he turned



A new front with windows that let in the light.

CLOVER LAND

LAUGHING BILL HYDE By REX BEACH

Copyright, 1917, by Harper & Brothers

Continued from November-December

SYNOPSIS

MR. WILLIAM HYDE had lost his ambition as a "stick-up" man through the example of honest living practiced by Dr. Thomas, the man who had kindled the spark of manhood in the ex-convict with his deeds of brotherly love. Although Mr. Hyde had discontinued his line of business that had kept him alternating between prison and outdoor life, he clung to the idea that it was no crime to steal stolen goods from a known thief, and believed the plunderer of innocent and unsuspecting people's property should be forced to make restitution with or without knowing it.

Keeping in mind how Ponatah had been robbed of her share in a productive mine in Alaska by a sanctimonious missionary, and having discovered how the gold from the mine was being stolen from the pious savior of souls by his superintendent and foreman, Mr. Hyde decided to get into the game himself, not for his own benefit, but to restore the stolen property to the Indian girl. He chose his own methods to accomplish this end after he discovered the robbers' cache high up in the mountains, and with the aid of a donkey and a stormy night removed the gold to a safer place for keeping.

Confident that their cache could never have been discovered, Berg and Slevin climbed the mountain for the last time—to carry away the gold stolen from the thief missionary, and clear out for the States. Expectantly they uncovered the treasure box, only to find it empty, and then—

BERG was on his feet in an instant; he strode to the excavation and bent over it. After a time he straightened himself and turned blazing eyes upon his confederate. Denny met his gaze with the glare of a man demented.

"Wha'd I tell you?" the latter chattered. "I told you they'd get it. By God! They have!"

He cast an apprehensive glance over his shoulder. Far below the lights of the valley were beginning to twinkle, in the direction of Nome the cross on the Catholic church gleamed palely against the steel-gray expanse of Behring Sea.

Berg was a man of violent temper; he choked and gasped; his face was bloated with an apoplectic rage. He began to growl curses deep in his throat. "Who got it?" he demanded. "Who d'you mean by 'they'?"

"Sh-h!" Slevin was panic-stricken; he flung out a nervous, jerky hand. "Mebbe they're here—now. Look out!"

"Who d'you mean by 'they'?" the larger man repeated.

"I—God. I dunno! But there must 'a' been more'n one. Five hundred pounds! One man couldn't pack it!"

"You said 'they'!" Berg persisted in an odd tone.

Slevin's madly roving gaze flew back and settled upon the discolored visage thrust toward him, then his own eyes widened. He recoiled, crying:

"Look here! You don't think I—?" His words ended in a bark.

"I ain't said what I think, but I'm thinkin' fast. Nobody knew it but us—"

"How d'you know?"

"I know."

"Slowly Slevin settled himself. His muscles ceased jumping, his bullet head drew down between his shoulders. "Well, it wasn't me, so it must 'a' been—you!"

"Don't stall!" roared the larger man. "It won't win you anything.

You can't leave here till you come through."

"That goes double, Jack. I got my gat, too, and you ain't going to run out on me."

"You wanted to quit. You weakened."

"You're a liar!"

The men stared fixedly at each other, heads forward, bodies tense; as they glared the fury of betrayal grew to madness.

"Where'd you put it?" Berg ground the words between his teeth.

"I'm askin' you that very thing," the foreman answered in a thin, menacing voice. Slowly, almost imperceptibly, he widened the distance between himself and his accuser. It was not a retreat, he merely drew himself together defensively, holding himself under control with the last supreme effort of his will.

The tension snapped suddenly.

With a harsh, wordless cry of fury, Black Jack tore his six-shooter from its resting place. 'But Slevin's right hand stirred in unison and it moved like light. Owing to the fact that he carried his gun beneath his left armpit he was the first to fire, by the fraction of a second. It was impossible to miss at this distance. Berg went to his knees as if hit by a sledge. But he fired from that position, and his shot caught Slevin as the latter crouched nimbly. Both men were down now. Slevin, however, seemed made of rubber; he was up again almost instantly, and zigzagging toward the shelter of the nearest rocks. Berg emptied his Colt at the running target, then a shout burst from his lips as he saw Denny pitch forward out of sight.

With shaking, clumsy fingers Black Jack reloaded his hot weapon. With his left hand pressed deep into his side he rose slowly to his feet and lurched forward.

"You rat!" he yelled. "Double-cross me, will yeh?" He heard the sound of a body moving over loose stones and halted, weaving in his tracks and peering into the gloom.

"Come out!" he ordered. "Come out and own up and I'll let yeh off."

There was a silence. "I see yeh!" He took unsteady aim at a shadow and fired. "Never mind, I'll get yeh!" After a little while he stumbled onward between the boulders, shouting a challenge to his invisible opponent. He had gone perhaps fifty feet when the darkness was stabbed by the blaze of Slevin's gun. Three times the weapon spoke, at little more than arm's length, and Black Jack spun on his heels, then rocked forward limply. It was a long time before the sound of his loud, slow breathing ceased. Not until then did Denny Slevin move. With a rattle in his throat the foreman crept out from hiding and went down the mountain-side upon his hands and knees.

It occasioned considerable speculation at the Aurora Borealis when neither the superintendent nor the foreman appeared for breakfast. Later, a telephone message to Doctor Slayforth having elicited the startling intelligence that neither man had been seen in town during the night, there came a flicker of excitement. This excitement blazed to white heat when Slayforth rode up on a muddy horse, accompanied by the town marshal and the chief of police. Followed more telephoning and some cross-examination. But the men were gone. They had disappeared.

It was a mystery baffling any at-

tempt at explanation, for there were no ships in the roadstead, and hence it was impossible for the pair to have taken French leave. While a search party was being organized there came word that the missing saddle-horse had been found on the slope of Anvil Mountain, and by the time Slayforth's party had reached the ground more news awaited them. Up near the head of the draw some one had discovered the body of Denny Slevin. There was a rush thither, and thence on up the trail Slevin had left, to the scene of the twilight duel, to Black Jack Berg and the cache in the slide.

The story told itself down to the last detail; it was the story of a thieves' quarrel and a double killing. Doctor Slayforth fell upon his bag of gold as a mother falls upon her babe; he voiced loud, hysterical condemnation of the deed; he wept tears of mingled indignation and thanksgiving; he gabbled scriptural quotations about the wages of sin. Then, remembering that the wages of his men were going on, he sent them back to their work, and determined to dock half their morning's pay.

The story of the tragedy was still the sensation of Nome when, a fortnight later, Laughing Bill Hyde showed up in town with the cheerful announcement that he had been fired. Ponatah was at the cabin when he arrived, and she did not try to conceal her joy at seeing him again.

"I've been so unhappy," she told him. "You've never been out of my thoughts, Billy."

"Ain't you got nothing better to think about than me?" he asked, with a smile.

"Well, the psalm-shouter let me out—jerked the piller-slip from under me, you might say—and turned me adrift. He's got a high-chested, low-browed Swede in my place. It takes a guy with hair down to his eyebrows to be a buck chamber-maid."

"The old rascal!" Ponatah's face darkened with anger. "No wonder those men robbed him. I wish they had taken all his gold, and escaped."

"You're pretty sore on his heavenly nibs, ain't you?" Ponatah clenched her hands and her eyes blazed. "Well, you got this consolation, the Aurora ain't as rich as it was."

"It would have

been rich enough for us."

"Us?"

"Yes, You'd marry me if I was rich wouldn't you?"

"No, I wouldn't," Bill declared, firmly. "What's the use to kid you?"

"Why wouldn't you? Are you ashamed of me?"

Bill protested, "Say, what is this you're giving me, the third degree?" "If I were as rich as—well, as Reindeer Mary, wouldn't you marry me?" Ponatah gazed at the unworthy object of her affections with a yearning that was embarrassing, and Laughing Bill was forced to spar for wind.

"Ain't you the bold Mary Ann—makin' cracks like that?" he chided. "I'm ashamed of you, honest. I've passed up plenty of frills in my time, and we're all better off for it. My appetite for marriage ain't no keener than it used to be, so you forget it. Little Doc, he's the marrying kind."

"Oh yes. He tells me a great deal about his Alice. He's very much discouraged. If—if I had the Aurora I wouldn't forget him; I'd give him half."

"Would you now? Well, he's the one stiffneck that wouldn't take it. He's funny that way—seems to think money 'll bite him, or something. I don't know how these pullanthroists

(Continued on Page 46)



"There Ain't a Particle of Uncertainty About Eclipse Creek," Mr. Hyde Assured the Ex-missionary.

Cloverland

MAGAZINE

The Illustrated Monthly Magazine of Greater Cloverland

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THE ANDREWS PUBLICATIONS,
313, 315, 317, 319 Quimby Avenue,
Menominee, Michigan

Entered as second-class matter January 27, 1916, at the post office at Menominee, Michigan, under the Act of March 3, 1879.

Subscription price, postage paid, \$1.00 a year in advance.

Advertising rates on application.
Make all remittances to Cloverland Magazine, or to the Publisher, R. M. Andrews.

JANUARY, 1920

REST

"UNREST," as applied to the industrial situation, is a misnomer.

The trouble with industry isn't "unrest"; it's just plain rest—and a lot too much of it.

A while back, industrial workers were discussing the eight-hour day. They got it. Then they talked a seven-hour day. In many industries they got that. Now they talk six-hour days and every here and there an enthusiastic radical "leader" blighly remarks that five hours, or four, or three, is the correct working day.

And we call all this "unrest"! It distinctly seems that REST, in ever greater quantity, is what the so-called leader has most in mind.

Rest is a fine thing. It's particularly fine after a ten or twelve or fourteen hour day on the farm. It seems less urgently necessary after a four or five hour day in the shop. It gets into a class with the non-essential industries, under such circumstances.

If the world really is suffering from unrest—or more correctly, restlessness—it is not so difficult to find the reason. Restlessness always follows a lack of something to do.

Ever notice how, along about the middle of a peaceful Sunday afternoon, the family begins to get restless? There has not been anything to do for an hour or so, and restlessness invariably follows such a state. The man who is busy is not restless. The fellow with a real job on his hands is too occupied and too interested to be restless.

They say that on the Western coast a fine, clear lot of lumberjacks were enjoying a contented and busy winter in the woods. Somewhere down in the Central States a group of theorists, planning to free the world from work, decided that there was too much content in the Northwestern forests. They gathered together some three hundred conversationalists and sent them into the woods. Soon the lumberjacks began to hear about hardships that had never dreamed of before, and about parasites deriving huge profits out of their labors.

The lumberjacks had always prided themselves upon their ruggedness, their outdoor life, their physical prowess, and the fact that they were real men. But enough conversation can do fearful things to an outdoor mind. In a month or two the conversationalists convinced these boys that they were the most abused persons on earth. The boys also were believing that about two hours of work every day was all that could be reasonably expected of any man. So one morning the west coast lumber industry woke to a strike.

It is said that one or two of the lumber operators, who had been lumberjacks themselves, took their books and records right into the camps. They sat down with the boys. They showed just exactly what the profits were, what troubles were met and how many hours THEY—the operators—were putting in daily. A man can't run a lot of lumber camps, fill rush or

ders, meet government demands, keep his finances straight, consult with his bankers, rush about from place to place, buy machinery and supplies, arrange for shipping, and attend to a few other office details without doing some work. He may be the boss, but the chances are he gets the longest day and the largest share of the grief.

After these operators got through with their story the boys went back to work. The next conversationalist who talked to them about a two-hour day was heaved into the river.

It is a bad thing to work all the time. There ought to be hours of recreation. We should all get more out of life than just work. It is unwise to toil through sixteen hours; it's just as unwise to cut down toil to two hours or three, or four.

There's a happy medium.

Protecting the Farm Buyer

THE State of Wisconsin is licensing real estate dealers.

It is said that behind this law is a desire to protect the buyer of farm land. That is an excellent legislative motive.

A lot of real tragedies have followed land buying. Men have read glowing circulars. They have heard able liars tell marvelous stories. Then they have sold their farm or home in one state, have loaded their goods, and have traveled far—only to find they had bought a section of the Great American desert, or a forty down on the bed of a lake.

Of course, they were suckers. The deal was funny to the man who got the money. It wasn't so funny to the sucker. And it was the saddest kind of tragedy to a woman, perhaps, and to three or four children whose future was thus suddenly knocked out from under them.

Under the license law the State of Wisconsin purposes to stop this sort of thing. Every honorable land owner and land agent will be glad to come under the license system. His dealings are fair and on the necessary axe. He will hide from the state. The unscrupulous dealer may object. It's well he does.

If the law can be properly enforced, it ought to mean a lot to the State of Wisconsin. That state, like others, has had some sad land experiences on its record. Its northern cutover lands have been sold to settlers, now and then, who should never have been induced to try farming. There were land owners, in days gone by, who took all the savings from some deluded wage-earner as part payment on a tract of cutover land. The wage-earner and his family moved up among the stumps. The last dollar was used to pay railway fare. When they reached the cutover section they hadn't enough left to buy breakfast—let alone stump pullers or even the necessary axe. Naturally, they failed. These failures had a bad effect upon the entire cutover section.

The fault lay with the land owner. To take the last dollar of a man's money for a tract of undeveloped land is fundamentally wrong. It is a different matter if you give him an improved or partially improved farm upon which he can immediately begin raising profit-paying crops.

But even then, is it good business? How many successful farmers would want to start—say in spring—on a good farm, with good buildings, but without money? After all, farming is just like any other business—it requires capital. Machinery, tools, seed, and live stock mean an investment. Given nothing but a farm—and that farm unpaid for, so it cannot be mortgaged or borrowed upon—and the farmer is up against it.

The Wisconsin license law may not cover all these situations. It will, however, insure honorable dealing, and should insure a fighting chance for the buyer of farm property. The law will be administered, it is understood, by the commissioner of immigration. Wisconsin's commissioner has a record of sound and excellent achievement. While it has been his business to get settlers for his state, he has always believed that the settlers' interest is

primary. He has never tolerated an influx of men just for the sake of getting them. He has sacrificed quantity for quality. The men who have come into Wisconsin, through the office of its commissioner of immigration, have had a fair chance to succeed. If they failed, it was at least a 50-50 chance that they themselves were to blame.

The Wisconsin license law, therefore, is in good hands, is correct in principle, and should prove an excellent example for other states to copy.

The Evil Men Do

"THE evil that men do lives after them; the good is oft interred with their bones."

Mr. Shakespeare was not discussing land owners when he wrote these lines. Nevertheless, no group of men has better cause to think them over frequently and often.

During the history of every new country there has been a small minority of owners who practiced every land selling trick known to history. This evil has lived after them. The good done by the great majority is often forgotten.

By far the greater number of men who have owned the lands of the United States have sold them to others on a fair basis. Very many of these owners have financed farmers and settlers. They have gone deeply into their own pockets to help the user of the property succeed. Sometimes they have purchased live stock, machinery, and equipment, practically without security. Sometimes they have actually helped with the work and often they have sponsored credit at the grocery store or supplied food and clothing against a family's need.

These efforts have not always been appreciated. More than one settler has deliberately deserted a land owner, after he had been grub-stacked and nursed along for a period of years. More than one settler has used the house built for him, taken the owner's food, and availed himself of credit in an owner's name, the meanwhile seated behind the stove in calm content. He hasn't made a real effort to develop a farm and he has cheerfully told the owner to go-to-hell when the owner protested.

These facts should, in fairness, be remembered when we hear condemnation of land owners. We hasten to add, however, that it is distinctly the owner's duty to aid, in every possible way, the right kind of purchaser of wild land. The average settler needs all the help he can get—and such help is not charity, either. He needs credit, just as any other business man needs it. His notes must be extended from time to time. And if there are good reasons why land payments should be deferred, he must also be accommodated in that way. The land owner has a duty beyond merely disposing of his property.

Incidentally, it is good business to help settlers succeed. Every successful settler is a booster for the country, brings relatives, friends, or others into it, and adds to the agricultural strength of the community. Every failure becomes a knocker, prevents friends and relatives from coming, and adds to nothing except the disappointments of which every new country always has its share.

Live Stock Production and Prices

THERE will be no perceptible decrease in the price of live stock in many years to come. Market fluctuations due to heavy shipments during short periods will have a tendency to depress prices for the time being, but the markets will recover from these sporadic declines, just as they are now recovering from the chaotic conditions incident to abnormal shipments during September and October of last year. Average prices for the year, which really gauge the live stock market, will be sustained at the present level, and there are many indications that prices may be considerably higher. One thing is certain, prices will

never go down to average quotations of five or six years ago.

The shrinkage in live stock production during the world war can not possibly be recovered within a decade or more. We have nothing more than estimates of the number of breeding animals sacrificed during the war, and these estimates are more apt to be in excess of the actual number surviving than below the actual figures. It is certain that the toll drawn upon breeding animals for meat supply was heavy, their usefulness as propagators of meat supply was cut short by war necessities.

Every stockman knows that the cycle of production to show an increase must extend over a period of at least five years breeding. In addition to this natural increase there must be conservation of meat consumption if depleted herds are to be built up to pre-war status. All Europe is hungry for meat, and there is little likelihood of meat-eating America abstaining from normal consumption, so we have no encouragement in the form of conservation to gain a surplus over present consumption.

England and continental Europe are drawing and will continue to draw heavily upon the Americas for meat, and breeding animals. To keep pace with this double drain will necessitate two things—more and better breeding. There can be only a slight increase in the number of animals bred each year, so we must look to better breeding if our meat supply is to be materially increased within the next ten years.

Every stockman knows that pure bred animals grow faster than scrubs, and their keep costs no more. There is a large initial investment but this additional cost is more than offset at the market scales and in prices received. Better stock will more nearly overcome the war shrinkage than merely an increase in the number of animals bred, but by combing the two, there is hope of overcoming a world shortage of meat. However, no stockman need fear an overproduction within the span of his life, because we have fallen so far behind that it will require a generation of stockmen and many generations of live stock conserved and bred for production before the old pre-war level may be attained. In the meantime yearly average prices can not possibly decline.

Wintering Sheep

ALTHOUGH sheep are the hardiest of farm animals because nature has provided them with a warm coat of wool and a vitality remarkable under severest conditions and restricted feeding, wintering sheep successfully is a problem in any country. Methods must be adopted to conform to climatic conditions, and feed must be provided if sheep are expected to come through the winter in good flesh and constitution.

Wintering sheep in Cloverland is no more a problem than it is elsewhere. The only problem is how to winter them. Large herds have been successfully and economically wintered in Cloverland, and many thousands are now being wintered in this new live stock country. Records of past years show that losses have been kept down to about one per cent in large herds, while losses on the western ranges run from ten to twenty-five times greater. This saving is due to the methods employed.

Of course no sheep may be wintered as cheaply where slight shelter and a little roughage and feed is provided as in districts where the great sky is the only roof and what feed they may "rustle" is their only sustenance, but the saving in animals, increase and weights at the end of the year where the former methods are used more than offsets the cost of winter keep. The greater the care in winter the greater the profits.

The assessed valuation of sheep in Salt Lake County, Utah, has been increased 300 per cent. And still there is a universal cry for "more wool, more mutton." Somebody has gone crazy in Utah.

Cattle and Sheep Ranging in the Great Lakes Basin—An Editorial

THE Great Lakes Basin offers the finest cattle and sheep grazing acreage in the United States today.

But *this acreage needs preparation*. Without it there may be successes; there will be failures in the cattle and sheep business.

The ultimate destiny of ninety per cent of all lands in Michigan, Wisconsin and Minnesota is dairying or general farming. The lands are too fertile and too valuable to permanently remain live stock ranges.

In the meantime rich profits may be derived by men who will graze cattle and sheep on these acres.

THE CLOVERLAND MAGAZINE again advises properly qualified men to engage in live stock grazing in the cut-over sections. But it repeats these warnings:

Live stock will not fatten in dense under-brush. Open space is needed. The sunlight must be let in. Swamps and lowlands must be avoided. Speaking *generally*, the rough uplands—the hilltops—are best suited to live stock ranging.

Properly prepared, a range in the Great Lakes Basin will excel almost anything that can be found in the United States today. Clover is indigenous. Much of it will spring up as soon as brush is cleared away. More of it will appear if the land is seeded. Blue grass, timothy and other natural northern grasses quickly cover open soil. Crop failures are unknown. A general drought is unheard of. Abundant water prevails. Nor do the bitter winters of the Western states affect live stock.

There is ample unused land. Ranges can readily be procured either upon lease or by small cash payments. There are no open ranges, as these are understood in the far west. Nor can cattle and sheep be indiscriminately turned loose, perfunctorily herded and, in Fall, carelessly rounded up and shipped to market.

The Great Lakes Basin is distinctly *not* Montana, Wyoming, and Utah. It will ultimately be a farming community—which means that it already has farming characteristics. This also means that live stock, even in the undeveloped sections, must be treated quite as much from a farm standpoint as a range standpoint.

Live stock grazers or owners, must prepare the land. This is not as big a task as it might seem. For grazing purposes the preparation is comparatively slight. It involves burning the brush in spring; this can profitably be followed by some clearing with an axe or grub hook. Four or five men, working under good direction, will immensely improve a large tract in a single season. Some acreage ought to be thoroughly cleared and converted into meadows. From this hay can be cut. Permanent success with live stock in the Great Lakes Basin will be based upon ability to carry over that stock on inexpensive winter feed. The basin is a real hay-growing country. It can provide all that any grazer may require. It asks only that the seed be planted on proper ground and that the crop be harvested.

Shelter is needed in winter. It can be inexpensive shelter, however. Sheds made of poles, cut from the land, have proven satisfactory. Lumber is available in almost every part of Cloverland, for saw-mills still abound in this territory. Concrete can, of course, be used, and makes excellent permanent structures.

By burning then, and hand clearing, the range is opened. By following with a spring tooth or disc harrow, the range is prepared for grass or clover seed. By more intensive work on limited tracts, hay fields are provided and, with the material on the ground, sheds are readily enough constructed.

In the meantime sheep or cattle may be grazed at once. They will *live* well even on unprepared land. They will *fatten* as they follow the clearing. In some cases they will be in fair marketable condition after a few months under these circumstances. But it will be during the second year, and thereafter that the grazer will really begin to profit. The range will grow better and better as he works upon it, and as his live stock checks brush sprouts and tramples grass seed into the soil. His hay crops will increase and he will be in better position each fall to hold his stock until the market is right. He will gradually change his methods to conform with the country's facilities. He will add grain fields to his meadows. He will plant northern varieties of corn. He will erect barns and silos, and he will in all probability, reduce the size of his range as he intensifies the production in his fields.

This he will do because it is the most profitable course to follow. In doing it he will serve both himself and the country. The ranges upon which his sheep or cattle have grazed will make infinitely better homesteads for small settlers than this same land would make had it not been grazed over.

The Western cattle or sheep grower, therefore, may come into the states of Wisconsin, Michigan and Minnesota, with entire assurance that he *can* succeed. He must, however, follow the mandates of the country. He must plan to build his ranch on a permanent basis. He must select the right location. He must forget the western ideas of open range. He must shun dense underbrush. And he should by all means consult with

(Continued on page 38)

CLOVERLAND MAGAZINE

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The Stockman
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HARRIETT L. HARLOW,
its editress

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Woman and the Home

By HARRIETT L. HARLOW



HOME centers around its kitchen. There is nothing more "homey" or wholesome than the odor of freshly baked bread, or a well-cooked meal. Sunshine, filtering into a clean, cheery kitchen, is a stronger homelie than we suspect.

The difference between the right and the wrong kind of kitchen is one of management—not of money.

Cleanliness is the first requisite. Sunlight is the best cleanser. Kitchen windows or doors must not be sealed, blocked with storm protections, or covered with heavy curtains. The sun must have free access. Given a chance, the sun will do much for any kitchen. First of all, it will show cracks and crevices. These should be covered with paint, oilcloth or linoleum. Then it will bring out the dinginess of dark woodwork and of hidden corners. Woodwork should be light—white or light blue or yellow are good colors. Oil paint, which is washable, should be used.

With bright walls, a linoleum floor and oilcloth covered shelves, a cheer and brightness will come over the kitchen that will make the rest of its arrangement mere detail. The stove may be a coal range or a gasoline burner; or it may use gas or electricity as fuel. The sink may have running water or may be a basin with a pump from the cistern. The ice chest may be modern or home-made. If plenty of paint, linoleum and oilcloth have been used the equipment will fit, no matter what its type.

The kitchen shown in these pictures was an old one. Its woodwork was dark brown. Its walls were green.

THIS IS JUST by way of introduction to my readers. I hope we shall become really well acquainted. I like people. Friendship is, I think, one of the finest things in the world. We all need lots of it. Women must give lots of it. For "friendship" is the tendency upon which the best human emotions are founded. Mother-love is one of the deepest, most highly refined forms of friendship. Love of husband and of home are other forms. We feel the same kind of emotion—though less deep and intense—for our friends and neighbors.

And so friendship is a wonderful thing. Our men-folks need it. Oh, they bluster about a lot; they're real independent and self-sufficient while everything's going nicely. But when things go wrong—when they have business trouble; or when they're sick—how they are soothed and encouraged and cheered by the friendship or the love of a good woman! Of course, they're not going to tell us so; and, of course, they never will admit it to other men. But it's true, just the same.

In these pages for women, then, I hope we may, first of all, be really friendly. I hope we may exchange ideas; that we may learn from each other; that we may discuss women's problems; and that every one of my readers will feel glad to write to me, to tell me all about herself, and to let me help her—or get better advice than my own, from other, better qualified women—in any matter at all. I know I shall always like to write to my readers—either in CLOVERLAND MAGAZINE, or by personal letter.

Please address your letters to me, in care of the CLOVERLAND MAGAZINE, Bellin-Buchanan Bldg., Green Bay, Wis. I will then get them personally. I will always be glad to have your suggestions, your household or home experiences and, for that matter, will want to hear from you on any one of the thousand matters that come into the life of a woman.

Harriet L. Harlow

bought blue and white printed congoileum at a cost of \$12. She admitted that an inlaid linoleum would wear better, but argued that it is much more expensive.

"And," she said, "I overcome even that by varnishing the printed covering as soon as it is laid. The varnish costs less than \$2.00. If varnish is applied once or twice a year, printed linoleum will last quite as long as the more expensive kind. I use the best grade of spar varnish."

With walls and floors now a sparkling blue and white, it seemed that at least double the sunlight was coming into the kitchen. Of course, the dark curtains were replaced by plain dimity sash hangings.

Next she turned her attention to the pantry. It had been painted like the kitchen and needed only a washable covering for its shelves to make it complete. She bought ten yards of oilcloth at 60 cents a yard. This she cut to fit every shelf and every drawer and cupboard.

"It is particularly important that drawers and cupboards have this covering," she said, "because its whiteness shows every bit of dirt, and because it is so easy to lift out the pieces and wash them at the sink."

This done, her kitchen was ready for use. Her bills for converting a cheerless kitchen into a real home-center were as follows:

White oil paint	\$ 5.00
Same—Light blue	5.00
Spar varnish	2.00
Congoileum	12.00
Oilcloth	6.00

Total

\$30.90

"I have not charged the sash cur-



A view of the kitchen. Walls are light blue; woodwork white; floor covered with linoleum. The whole is washable—even to the white enamel waste basket.



The pantry shelves are covered with oilcloth. Food is kept away from the dishes. The containers are glass tobacco jars—clean, and practical.

The windows were covered with dark hangings. The effect was gloomy and hopeless. It wasn't the sort of kitchen one liked to go into in the morning. There was nothing cheery against the day's work, nor anything to inspire wholesome, appetizing meals. The woman who took over the old house wanted cleanliness and cheer. She hasn't much money to spend on her kitchen. So she substituted common sense. She first applied white oil paint to the woodwork. Two coats were necessary to cover the original dark brown finish. The paint cost \$5.00. She used light blue for the walls and ceiling, which also required two coats and cost another \$5.00.

The floor, as she found it, was of unfinished hardwood. She argued that any unfinished hardwood or pine flooring quickly becomes stained or spotted. No amount of scrubbing, she said, will keep them bright. So she

HARRIETT L. HARLOW is an unusual woman. She has shown remarkable ability in household matters. She does not claim to be passionately fond of housework. She looks upon it rather as a business; that is, she says that it is a woman's duty to establish and maintain a real home. She seems to have a faculty for doing just that, with a minimum of effort. Herself raised on a farm, she received her practical training in a farm home. Later she became known for the excellence of her housekeeping, her ability to entertain and the rapidity and ease with which she accomplishes her tasks. She later conducted an equally successful home in a large city. There, too, her methods, the immaculateness of her home, the wholesome simplicity of her dinners and her faculty for entertainment and "keeping things up" won comment. CLOVERLAND MAGAZINE recognizes in Mrs. Harlow a real acquisition, and believes that its faith will be fully shared by women readers.

THE EDITORS.

tains," she said, "because every woman has a bit of dimity or scrim that can be used; and if she hasn't, ordinary, white cheesecloth will do quite as well.

"I also feel that the cost of my kitchen was a little higher than will be necessary where woodwork and walls aren't quite so dark. In many homes a single coat of paint will do.

"As for furnishing the kitchen, I bought nothing new. If my stove, however, were not raised well off the floor, I would raise it. Blocks of wood, or better still, cheap iron standards, will get it up so that one can clean under it with a brush or broom. The same holds true of the ice-box, and of any other furniture or fixture in the kitchen.

"If there is a cupboard under the sink I should either tear it out or

(Continued on page 16)

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are changing meat buying customs

Council Meats come from Cloverland in vacuum packages which bring to your table all the original flavor, purity and goodness of the choicest meats.

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Woman and the Home

(Continued from page 14)

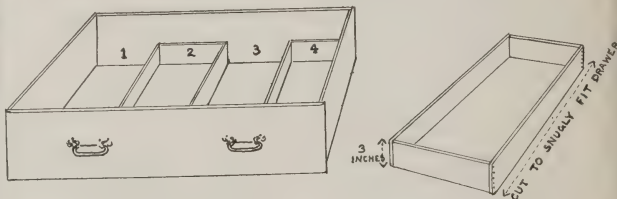


paint it white inside and line it with oilcloth. Such cupboards too easily become so untidy that we actually hate to open them."

"That, by the way, is an excellent test to apply to our kitchen management. If there is anywhere a drawer or door we hate to open, then there's something wrong with our methods. We ought to feel a real satisfaction in opening even the most remote corner. When we can do that—and when we are glad to have anyone else open them—then we may be sure our methods are right.

"Then, I like to have fixed places for foodstuffs. I like good containers.

"I think, too, that pantry and kitchen drawers need watching. We are all inclined to tuck away knives and forks, string, spools of thread, a few recipes, some rubber preserving rings and the family hammer, in some convenient drawer. How much searching and pawing around can be avoided, only the woman who has partitioned the drawers in table or pantry knows. Any man can make the partitions. They are nothing more than squares made of wooden strips. They look like a box without top or bottom. The strips should not be more than three inches wide. Set into the drawer, they provide as many compartments as desired. It is surprising how easy



Simple Divisions for Table Drawers Which Help Keep the Kitchen Neat

The cheapest, and I think the best, are glass tobacco jars. My husband no longer buys tobacco in tins. He buys it by the pound, in glass jars. I confiscate the jars. They are of just the right size for cereals, coffee, tea, brown sugar, farina, salt and similar daily necessities. They hold enough for several days' use, and being transparent, they tell us at once when we are running short. They can be easily washed, and they make a neat display upon the shelves. They also are a protection against dust and against the insects that sometimes get into our flour or cereals. Best of all, they soon break us of the habit of using cups and saucers, or allowing our pantries to fill up with paper bags and boxes. And such thing make for 'messiness.'

it is to find string, or recipes, the paring knife, or the teaspoons, when we have an established compartment for each of them. It is surprising, too, how different a drawer will look—how untidy in the first case; how neat in the second."

There are, of course, many other factors in kitchen management. Every housekeeper knows that only a few details have been touched upon here. However, in these fragmentary suggestions by a woman who brought sunshine and efficiency into a hopeless kitchen, is a practical basis upon which every kitchen can be re-made. If the little, but important, things she has mentioned are understood, it will be easier to follow her further suggestions, in other articles, during the coming months.

A Week of Breakfasts

Even the best appetites tire of "the same old thing."

Many a good dinner is spoiled just because it's the same dinner we had yesterday.

Change, in work or recreation or food, is a natural human craving.

In preparing meals day after day it is not easy to think up new menus.

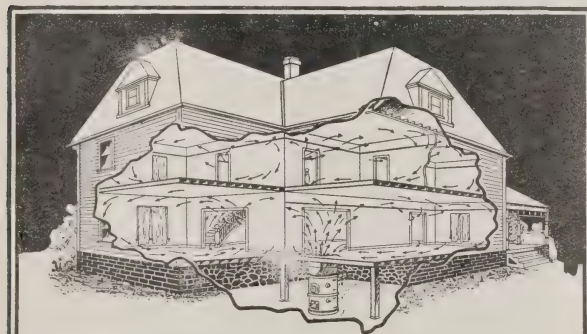
So in the following are suggested seven breakfasts. In preparing them it is recognized that the American people eat two distinct kinds of breakfasts. There is, first, the hearty morning meal that the active, outdoor family wants. Then there is the light breakfast, preferred by those who are not as active.

For the Outdoor Family

MONDAY		
	Apple Sauce	
	Buckwheat Cakes—Syrup	
Bread	Fried Pork Sausage	Doughnuts
	Milk or Coffee	
TUESDAY		
	Stewed Prunes	
	Bacon and Eggs	
Toast	Fried Potatoes	Cookies
	Milk or Coffee	
WEDNESDAY		
	Jam or Jelly	
Hot Muffins	Creamed Codfish	Oatmeal
	Milk or Coffee	
THURSDAY		
	Preserved Pears or Peaches	
	Buckwheat Cakes—Syrup	
	Wiener Sausages	
	Bread	
	Milk or Coffee	
FRIDAY		
	Preserved Raspberries	
	Ham and Scrambled Eggs	
Hot Corn Bread		Milk or Coffee
SATURDAY		
	Apple Sauce	Hash
	Fried Corn Cakes	
Toast	Coffee or Milk	Doughnuts
SUNDAY		
	Sliced Oranges or Grapefruit	
	Meat Croquettes	
	French Fried Toast with Honey	
Bread		Cookies
	Milk or Coffee	

For the Indoor Family

MONDAY		
	Apple Sauce	
	Buckwheat Cakes—Syrup	
	Toast	
	Milk or Coffee	
TUESDAY		
	Sliced Oranges	
	Cereal	
	Bacon and Eggs	
	Milk or Coffee	
WEDNESDAY		
	Jam or Jelly	
		Hot Muffins
	Oatmeal	
	Milk or Coffee	
THURSDAY		
	Preserved Pears or Peaches	
	Sour Milk Pancakes	
	Muffins	
	Milk or Coffee	
FRIDAY		
	Preserves	
Soft Boiled Eggs		Hot Corn Bread
	Milk or Coffee	
SATURDAY		
	Apple Sauce	
	Fried Corn Cakes	
	Toast	
	Milk or Coffee	
SUNDAY		
	Grapefruit	
	French Fried Toast	
	Soft Boiled Eggs	
	Milk or Coffee	



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has no pipes, no bulky cold air returns. Your walls are not torn up, no cellar is too small.

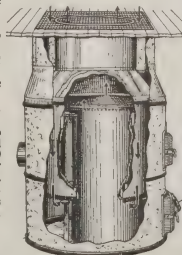
Will burn any fuel. Particularly adapted to soft coal. Special humidifier keeps the air always moist.

The furnace is built of heavy boiler plate steel, no cemented joints to leak gas, dust or soot. Fire pot lined with high-test fire brick, capable of withstanding 3400 degrees of heat. An abundance of clean, pure warm air sent to every room. Simpler than a stove to operate, cleaner, more saving of fuel, and much more healthful.

Sends heat to every room in the house. Ventilates as well as heats. Changes and purifies the air to every room. Keeps the cellar cool for fruit and vegetable storage.

Write MARSHALL WELLS CO., at Duluth,

for advice as to size to use; price will be quoted and order handled through your local dealer.



Arrows show direction of air currents

Old-fashioned Buckwheat Cakes:

Dissolve one-half cake of yeast in a cup of luke-warm water.
When cool, add one pint of milk.
Add buckwheat flour to make a thin batter.
Allow this to stand over night. (The mixture will rise and may overflow the dish).

In the morning, dissolve a pinch of baking soda in a tablespoon of water. When dissolved, stir into the batter.
Fry to a crisp brown, on a hot, well-greased griddle.

Muffins:

One tablespoon each of butter and sugar. Stir together until creamed.
Beat in two eggs.
Add one cup of milk.
Stir in two cups of flour, to which three teaspoons of baking powder have been added.
Place in well-buttered muffin or gem tins, filling about half full.
Bake in hot oven.

Creamed Codfish:

Wash the codfish, break into flakes and soak in water over night.

In the morning, drain, cover with fresh water, and boil until soft. Drain off the water.

Make a white sauce of one pint of milk or cream, thickened with three rounded tablespoons of flour, rubbed smooth with two tablespoons of butter or fat substitute. Salt to taste.

Use two cups of this sauce to each cup of cooked codfish.

Stir together well, reheat and serve.

Corn Bread:

Stir together until creamed, two table spoons of melted butter, two table spoons of sugar, and a pinch of salt.

Beat in two eggs.

Add one cup of sweet milk.

Gradually stir in one cup of corn meal and one cup of wheat flour, to which two teaspoons of baking powder have been added.

When well mixed, pour into shallow cake tin, well greased, and bake to a crisp brown in a moderate oven.

Fried Corn Cakes:

With a cup of boiling water, scald one cup of corn meal, to which a teaspoon of salt has been added.

Add one and one-third cups of sweet milk.

When cool, add one cup of flour, a heaping tea-

spoon of baking powder, and stir in two well beaten eggs.

Fry to a crisp brown on a well-greased, hot griddle.

Meat Croquettes:

Grind or chop any left-over meat.

To each two cups of chopped meat add one well beaten egg, and three table spoons of sweet cream. Salt and pepper to taste.

Mix well, form into balls, and fry.

French Toast:

To two well beaten eggs add two cups of sweet milk.

Salt and pepper to taste.

Into this batter, dip slices of left-over stale bread, until well soaked. Fry in butter, or fat substitute, to a crisp brown.

Serve with jelly, syrup or honey.

Sour Milk Pancakes:

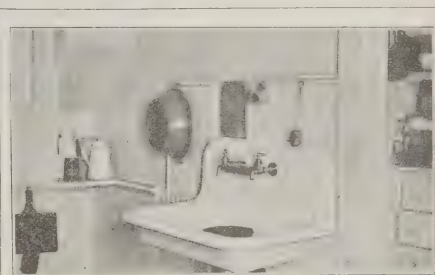
To two cups of sour milk or cream add one teaspoon of baking soda.

If sour milk is used, add two table spoons of melted butter; if cream is used butter is unnecessary. Add two well beaten eggs and a pinch of salt. Stir in two cups of flour. Fry on a well greased, hot griddle.

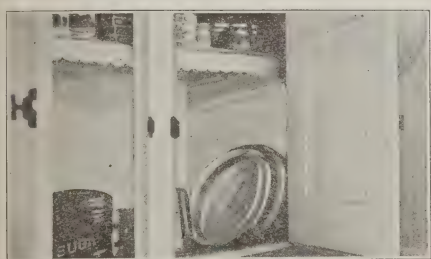
Recipes for "A Week of Breakfasts"



A corner of the pantry. Note the oilcloth covered shelves, white woodwork and linoleum. Its merit is cleanliness.



This sink is most impractical. It is entirely too low, compels much bending down to reach it, and it has no sideboards—which are very necessary.



The cupboards are painted and lined with oilcloth. They, too, are washable. Canned goods are kept on the shelves. A few pots and pans are stored away.



THE NORTHWEST'S LARGEST DEPARTMENT STORE

THIS IS the Northwest's largest Department Store, [wholesale and retail.] Our service will quickly show why we have won the confidence, friendship and patronage of the farmers and ranchmen of Cloverland.

Write for our new Furniture and Housefurnishing Catalogue just off the press

LAUERMAN BROS. CO.

MARINETTE, WISCONSIN

To our Cloverland Grazers and Farmers

It will be of great benefit to you to have your name on our mailing list and receive price lists and quotations on whatever you need



WHOLESALE BUILDING

Wisconsin Dairy Figures

Statistics show that Wisconsin produced some 60,000,000 pounds of cheese in 1890; 150,000,000 pounds ten years ago, and 300,000,000 pounds last year. The prediction is for 500,000,000 pounds within the next few years.

"The butter situation compares favorably with that of cheese," George J. Weigle, state dairy and food commissioner, says. "The changes caused by war conditions have reacted to Wisconsin's advantage, with the result that last year 100,000,000 pounds of butter were produced."

In 1918 Wisconsin produced the enormous amount of 8,721,000,000 pounds of raw milk, with a value to the farmers of \$215,400,000. There are 353 creameries, 2,590 cheese factories and 54 condenseries in the state, besides hundreds of plants which are producing ice cream, malted milk, milk confections, etc.

The state now has 1,800,000 dairy cows, with registered herds becoming the rule rather than the exception, and a total number of experiment farms of 180,000. There were 65,000 silos with their 7,000,000 tons of silage last season.

Get This Seed Book

FOR 35 years Olds' Catalog has been the farm and garden guide of thousands of people. It has been responsible for the success of gardens, large and small, as well as field crops everywhere. It is a carefully tested and selected seeds. It leaves no room for guesswork, for

Olds' Catalog Tells the Truth

It makes no extravagant claims. Every statement is based on fact. You positively cannot make a mistake when you order garden, flower and field seeds, plants or bulbs from this book. Every packet of Olds' seeds is backed by 35 years of seed experience. All seeds are true to the strictest Wisconsin standards. When you buy Olds' seeds you buy wisely, carefully and assurance of good value. (No second-hand seed.) Why take chances?

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Save money on Timothy, Clover, Mixed Aleyko and Timothy, Rape, Sweet Clover, Seed Corn, Barley, Millet and other seed and garden seeds by ordering from the Adams Catalog. Our big plant sends out highest-quality seeds at real bargain prices.

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CATALOG
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Write

THE ADAMS SEED COMPANY
Box 7
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SUPERIOR ROOT CUTTERS

CUT FAST AND EASY

They cut any kind of roots or pumpkins in the finest possible shape for feeding.

Made for hand or power and with Electric Motor attached.

If not at your dealer's write us. Place your order early.

Superior Churn & Mfg. Co.

Box 454, Northville, Michigan

Frozen Fish

Large round Herring 6, Large dressed 7, Dressed Pickered 12, dressed Carp 7, Pike 16, Salmon 16, Codfish 12, Sablefish 14, 10 lb. basket smoked Bluefish \$1.00. Write for complete list frozen, salted, smoked and spiced fish, the best come from BADGER FISH CO., Dept. F, Green Bay, Wis.

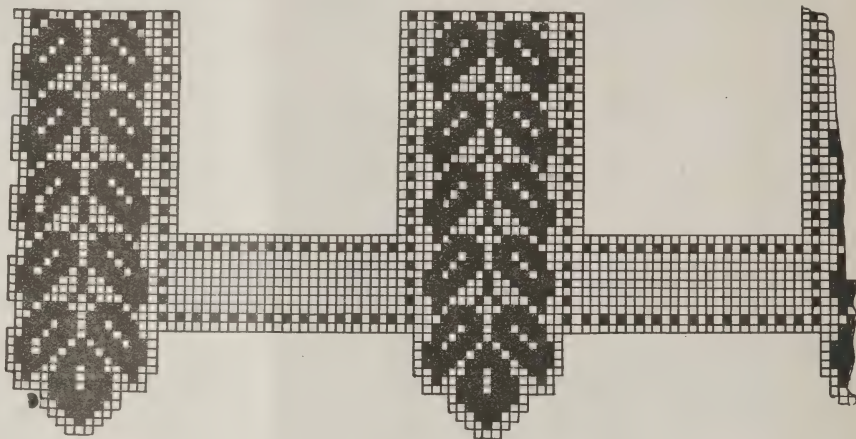
REPUTATION SEEDS

For Northern gardens and farms. Also flowers and plants for all occasions.

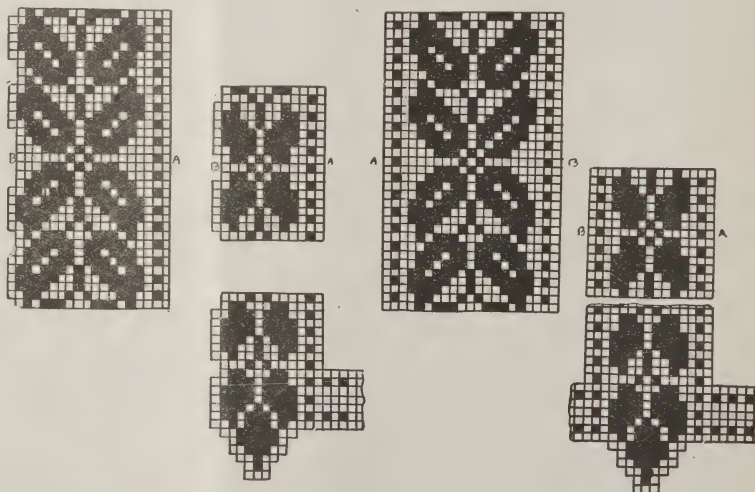
DULUTH FLORAL COMPANY,
Duluth Minnesota

ART NEEDLEWORK

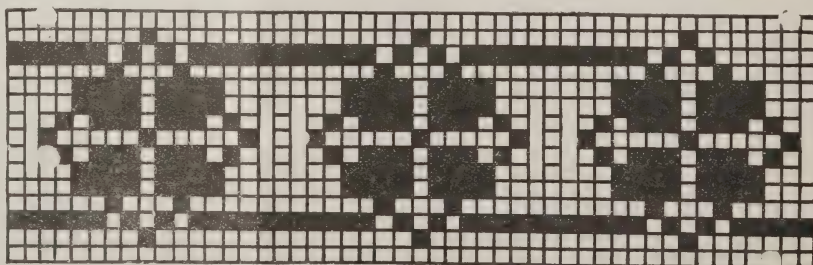
By EDITH M. OWEN



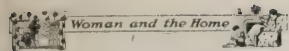
BEDSPREAD INSERTION AND LACE—This block pattern forms one of the most attractive bedspreads. The number of stripes of insertion vary according to the width of spread. When carpet warp used for the crocheting is combined with the unbleached cotton the effect is very pleasing. The stripes are crocheted first and then connected with the narrow filet bands. These bands may be repeated a number of times between the insertion if desired. The edges are finished with a single crochet and picot edge.



SCARF—The scarf matches the bedspread shown above. It has here two edges of lace with one central strip of insertion. The edges are finished with a single crochet and picot edge. A B indicates the center of the scarf.



INSERTION—This block pattern is an insertion in which the slots may be omitted. Crochet cotton No. 60 is used.



Practical Household Hints

To brighten and revive leather furniture, rub the leather surface with the white of an egg.

A rubber eraser will effectively remove rust or stains from knives or other metal utensils.

Use a light oil on dust cloths, to preserve the woodwork in furniture.

Silver may be cleaned by placing it in a pan, covered with sour milk, and allowing it to stand for half an hour. It should then be washed in hot, soapy water.

Kerosene is an excellent cleanser for enamel ware.

Remember that "the oven can wait for the cake; but the cake can never wait for the oven."

Melt butter over hot water; when placed directly over fire the flavor is quickly spoiled.

Hot bread should be cut with a hot knife.

If butter is rubbed on the upper edge of the pan in which milk, cocoa or candy is boiled, the liquid will not boil over.

Cranberries will keep for a year, in cold, sterilized water, in airtight Mason jars.

Use silver or wood, but never steel, in mixing salads or other highly acid foods.

To clean tea or coffee pots: Half fill with water, add a tablespoon of sals-soda and an inch cube of soap, and boil over slow fire for two or three hours. Then wash thoroughly.



food products are the standard of excellence in Greater Cloverland



Follow the Sign of the Rose

ROACH & SEEBER CO.

Wholesale Grocers

CALUMET, MICH. HOUGHTON, MICH. IRONWOOD, MICH.
MARQUETTE, MICH. WATERLOO, WIS.

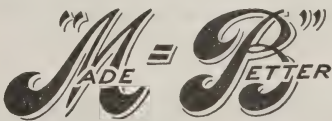
Sugar Beet Syrup

Shortage of sugar need have no terrors for the sugar beet grower. A rich sweet syrup that can be used for all cooking purposes, serving as a substitute for sugar, can be made from sugar beets, according to the investigations of the federal department of agriculture and chemists of the Minnesota College of Agriculture. A bushel of good beets will make from three to five quarts of syrup. The beets in the quantity mentioned should be cut into thin slices and put in a barrel or wash boiler and covered with boiling water and allowed to stand for about an hour. The water should then be drawn off and strained through a cloth in to a kettle or wash boiler for evaporation. When the syrup has been sufficiently concentrated by the process of boiling it down it should be poured while hot into sterilized glass jars or tin cans and closed tight. Beets that have been stored several months can be converted into good syrup provided they were fully matured when harvested.

A Practical Table of Weights and Measures

(CUT THIS OUT FOR FUTURE REFERENCE)

Two cups of butter	One Pound
Two cups of granulated sugar	One Pound
Two and one-half cups of powdered sugar	One Pound
Three cups of meal	One Pound
One pint of milk or water	One Pound
One pint chopped meat, packed solidly	One Pound
Nine large or ten medium eggs	One Pound
One rounded tablespoon butter	One Ounce
One heaping tablespoon butter	One Ounce
One-fourth cup butter	Two Ounces
Butter size of an egg	Two Ounces
Heaping tablespoon of sugar	One Ounce
Two rounded tablespoons flour	One Ounce
Two rounded tablespoons powdered sugar	One Ounce
One tablespoon liquid	One-half Ounce
Four cups flour	One Quart
Four cups liquid	One Quart
Sixteen tablespoons liquid	One Cup
Twelve tablespoons dry material	One Cup
Three teaspoons dry material	One Tablespoon
Eight heaping tablespoons dry material	One Cup
Four teaspoons liquid	One Tablespoon



TRUE BLUE
LAUNDRY

The Concentrated Sprinkler top Bluing

Manufactured by

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MILWAUKEE, WISCONSIN

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BADGER BRAND SEEDS ARE INDISPENSABLE



A timely advice.
Sow only the best
Seeds.

Many farmers in
the older cultivat-
ed parts of Michi-
gan and Wisconsin
are now paying the
penalty of having
sown inferior seeds.

Begin right. Don't
make the same mis-
take. Sow the best

**BADGER
BRAND
SEEDS**

are the best.

L. TEWELES SEED COMPANY

Established 1865

MILWAUKEE, WISCONSIN

Soy Beans for Silage and Feed

By R. N. KEBLER

Superintendent Menominee County Agricultural School

THE SOY BEAN is one of the best nitrogen-gathering plants that can be grown in the rotation, ranking at least as high as the clovers and alfalfa. Its extraordinary soiling and feeding properties have led many agricultural experiment stations to carry on extensive experiments with it. This plant is used extensively in the south as a soil builder, and has gained favor in some parts of Michigan. Experiments carried on at the Menominee County Agricultural School for the past two years leads to

on May 28th in a well prepared seed bed, following a grain crop in the rotation. They were drilled in rows twenty-four inches apart at the rate of about four pecks to the acre. Half of each plot was inoculated. In the case of the Wisconsin Black Wax, a small plot was planted, the same as in the case of the other four varieties, but in addition to this a patch of about one-half acre was planted on a piece of land where the quack grass had been partially subdued. All of these plots were on light sandy soil. In



Soy Beans Planted with Corn for Silage

the belief that this wonderful plant is adapted for growth in some sections of the Upper Peninsula of Michigan. It is being successfully grown on many farms in Northern Wisconsin.

A year ago a small patch of Wisconsin Black Wax Soy Beans was planted on the school farm. The seed was inoculated with soy beans culture before planting and a fine, mature crop of the beans was harvested. All results seemed to indicate a successful introduction of this plant into the rotation of some of the farms of Cloverland, but before recommending it, more experiments were thought advisable, so the school obtained several varieties of the bean in the hope of getting a variety even better adapted to the conditions here. The five varieties tested were the Wilson Five, Black Eyebrow, Ito San, Manchuria, and Wisconsin Black Wax.

These five varieties were all planted

in addition to this, some of the Wisconsin Black Wax was seeded with the corn for silage purposes on clay loam soil. This was also done with some of the Black Eyebrow and Ito San.

The beans were cultivated the first time as soon as they appeared through the ground in the sandy plots, but blind cultivation was necessary in the case of the clay loam soils, as there was a difference of at least five or six days in date of appearance. The greater part of the cultivation was done while the beans were young. As the beans were in the same field as the corn, they were cultivated about as often.

The beans were all harvested on September 15th. Some were pulled, others cut with the corn knife, but all were tied in small bundles and set up in shocks. They were turned twice before being hauled. Curing the beans similar to hay was tried last

Truly a Quality Coffee

*It is the result of twenty-two years
of careful and intelligent blend-
ing by coffee experts.*



INSIST ON THE GENUINE

ROASTED and PACKED BY

JOANNES BROS. COMPANY

GREEN BAY, WISCONSIN



Member of Milwaukee Association of Commerce.



BEST POSSIBLE

Men's Shoes

Ask in your shoe store
**BEALS-PRATT SHOE
MFG. COMPANY,**
Milwaukee and Watertown, Wis.

year, resulting in the loss of a large amount of leaves.

The above experiments with the beans leads to the following conclusions. The Manchuria is out of the question, as it had not set pods at the time of the harvest. The Wisconsin Black Wax matured the earliest, followed a week later by the Ito San and and Wilson Five. A slight variation is due to the fact that the Ito San and Wilson Five were not acclimated. The Black Eyebrow was about two-thirds mature at harvest time and is considered the best of the five for silage and hay on account of its large size, abundance of large leaves, date of maturity, and the fact that it bears its pods well up on the stalk. This high-bearing habit makes it possible to cut the corn with the corn binder without the loss of as many pods as would be the case with the earlier maturing varieties. It also holds its leaves well in curing, a fact which should make it one of the best to be cut for hay.

The inoculated beans seemed to do the best for the first two or three weeks, but after that there was not much difference as to size, color and general appearance. The nodules on the roots were much more developed on the inoculated plants, however.

Counties further north than Menominee would likely find the Wisconsin Black Wax better fitted for hay or silage because of its early maturity. In planting for silage, however, many of the pods will be lost, on account of its low-bearing habit.

The plant grows as well on clay loam soils as it does on the sand, and it grows a little taller and more leafy in the corn, using the corn as a support and making a very upright growth. Its dense shade was a help in subduing the quack after having weakened it considerably by late fall and early spring plowing and cultivation.

In feeding experiments, the soy bean cut in the hay stage was chopped and ground as in making alfalfa meal. This meal was substituted for the alfalfa in the ration for our dairy cows and was eaten with a great deal of relish by the cows, and resulted in a slight increase in the milk flow. Better results were obtained, however, when the alfalfa and soy bean hay were fed in equal proportions. This soy bean hay is a little higher in protein and fat than alfalfa and about the same in carbohydrates. Soy bean meal was also fed the hogs and they

seemed to enjoy it almost as much as they did the corn. They looked well after a few weeks feeding, but nothing definite as to the gain per pound has been ascertained.

In order to get the soy bean on more of the Cloverland farms, the Menominee County Agricultural School will ship small samples of soy beans to farmers and County agents wishing to try them out, provided they will give us a record of their results.

In an endeavor to procure the earliest maturing corn for this section, the Menominee County Agricultural School procured samples of Wisconsin numbers 7, 8, 12 and 25, from various parts of the state of Wisconsin, and planted them on the school farm. A sample of Wisconsin number 12 that had been grown on the school farm for the past two years was also planted. They were all planted the same date on the same kind of soil and under similar conditions.

Observations as to size, number of leaves and date of maturity leads us to conclude that Wisconsin numbers 12 and 25 were about the same, with possibly a few more leaves on the Wisconsin number 28, but the Wisconsin number 12 sent to us grew to be about two feet taller and matured about a week later than the Wisconsin number 12 that had been grown here for the last two years, and had been acclimated to this section. The Wisconsin number 8 matured slightly later than number 25 and number 12 and was slightly larger and more leafy. Wisconsin number 7 was so late in maturing that it was hardly in the milk stage at the time that the other corn was put in the silo. In traveling over the country, one sees much of this large, late-maturing corn being grown for silage purposes. This corn will not mature to the hard-glaze stage by the time frost kills it, and while the farmer may get a larger bulk of corn, the quality is not there and it will not produce the milk flow that a smaller amount of more mature corn would. Growing the more mature corn for silage will also help to lessen the amount of grain fed during the winter.

A few years ago the Squaw corn grown by the Indians of Chippewa County was crossed with Wisconsin number 12 at the school, resulting in a short-stalked, early-maturing dent corn. This corn will mature in about ninety days and should be almost an annual cropper for this section of the country.

Wisconsin Steers Bring Fancy Price


A noteworthy sale of Wisconsin steers that could hardly be termed more than grass cattle was made by our Chicago house Tuesday when we sold sixteen head averaging 1,530 pounds, at \$18.50 per cwt.

The owners of the above cattle were Griswold Bros., famous Shorthorn breeders of Livingston, Wis.

The cattle above referred to were of the Shorthorn breed, purchased as

three-year-olds last fall. Last winter they were fed silage, mixed hay and cottonseed meal, while this summer they ran on grass. For the last few weeks they had a short ration of new corn.

Griswold Bros. are very well known in purebred cattle circles. At one of their recent sales of purebred Shorthorns they disposed of \$31,000 worth of stock.—Clay, Robinson & Co. Report.



HONORBILT SHOES

For the Whole Family

DRESS up shoes for everybody, work shoes, school shoes for the children and easy restful house shoes. *Honorbilt Shoes* contain the same good quality leathers they did 38 years ago; they are built on honor. The name *Honorbilt* stands for a heaping measure of service. Wear a pair and prove it for yourself.

Men's and Women's Fine Shoes

The fine shoes are all that anybody could ask for in style and you get choicest leather plus genuine comfort. You are sure to find the particular shape you want and always the latest styles, and a wide variety.

Work Shoes

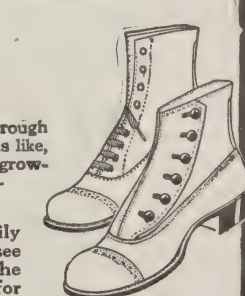
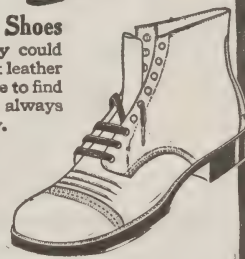

Honorbilt Work Shoe leather is double tanned to resist the alkali in the soil, as well as barnyard juices. They are soft and easy on the feet yet long wearing and will not get hard when wet. *Honorbilt Work Shoes* will give double the wear of ordinary shoes.

Children's Shoes

Sturdy, well-built shoes that stand rough treatment—the kind boys and girls like, and their parents, too. Shaped for growing feet. The quality is there—they wear like iron.

No matter who in your family needs a pair of shoes next, see your dealer who handles the Mayer Honorbilt line. Look for the name *Honorbilt* on the soles.


F. Mayer Boot & Shoe Co.
Milwaukee, Wis.



Raynster

Reg. U. S. Pat. Off.

ASK your dealer for the RAYNSTER—the all-purpose weather coat. Made by the largest rubber manufacturer in the world.



United States Rubber Company
Milwaukee Branch: 41-45 Oneida St.
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Northern State Normal College

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Splendid Faculty

College Courses leading to A. B. degree—Normal School Courses for teachers of all classes—Special Courses in Art, Music, Manual Training, Home Economics, Kindergarten and Commercial.

The school has had more calls for teachers than it can supply

Write for information and bulletin

DORIS I. BOWRON, Secretary

JAMES H. KAYE, President

When writing advertisers, please mention Cloverland Magazine.

Where Does Your Wool Go?

The transformation of the idle cut-over lands of Wisconsin, Michigan and Minnesota into a productive grazing territory is a change which every Cloverland farmer desires. It means money in his pocket and greater value for his farm.

By helping to create a market for your wool, we are helping the Cloverland movement. When you buy Patrick-Duluth garments made of pure northern wool you help to make Greater Cloverland greater.

Buy the Clothes that your sheep help to make

F. A. PATRICK & CO

Bigger-than-Weather Wool Products

DULUTH

Cash in on the Virgin Fertility of Cloverland with

"RAINBO"

Quality Seeds

"Rainbo" Brand Seeds in

**RED CLOVER
ALSIKE
ALFALFA
TIMOTHY**

may be obtained by you from
your dealer.

KELLOGG SEED COMPANY

WHOLESALE ONLY

MILWAUKEE, WISCONSIN

"Milwaukee Leads in Field Seeds"

Jim's Grocery Store

(Continued from Page 10)

will apply to soap, eggs, crackers, or cheese quite as well as to grapefruit."

Betty was popular. She had a large circle of intimate personal friends. Jim mailed fifty-seven carefully mimeographed letters over her carefully reproduced signature. Forty of them resulted in calls at the store.

He mailed three hundred letters over his own name. These, too, were carefully prepared and were made to look as nearly "individual" as was mechanically possible. These results were not quite as definitely measurable. However, the grapefruit sold like the proverbial hot cakes. Only by telegraphic re-order was Jim able to meet the demands.

The direct-by-mail campaign became a regular part of Jim's selling plan thereafter. He used it with proper caution. When something really exceptional was offered, Betty signed letters to her personal friends. They were actually appreciated—not looked upon as a mere part of an advertising campaign.

About once in two weeks Jim circularized his regular customers. He tried to give each letter a personal touch. Sometimes he used little brightly printed folders. He always made it a point to write about the things that were being particularly advertised in the farm journals and magazines. For instance, when one of the large mills was intensively pushing a particularly good brand of flour, Jim bought this flour and followed the general publicity with personal letters. Thus his customers not only read of the flour in their papers, but their special attention was called to it by Jim's letters. In this way he secured, for himself, the fullest benefit from the various advertising campaigns; he pleased his customers, and he pleased the wholesalers and manufacturers.

At first he concentrated only upon his established trade. The results were increased sales among his regular customers. Later he began to send personal letters to a few people in Elmsburg who were not regularly trading with him. He did not ask them for patronage; he merely called attention to some particular bargain and evidenced the store's interest in the prospective customer. Then he extended these personal letters to the country around Elmsburg. He wrote each letter with great care. He considered the special interests of those who would receive it, and sometimes he followed the letter by a friendly personal call. When he made such a call he did not discuss business. He made it a point to talk, rather, of the farmer's prospects, of his cattle, his fields, and of other things that would interest him. In time these personal efforts paid, out of all proportion to their cost in time and effort.

But in the meantime Jim found that the store was taxing him to his utmost capacity. He had hired two delivery boys and a clerk. He tried, however, to serve most of his customers personally. He tried also to keep his own books and he was placing his orders by mail or with traveling salesmen.

He found, every now and again, a break in his stock. He was short of something that customers particularly wanted. He missed a lot of good things, because he was too busy to really watch the market. He found, too, some bad accounts—new people, whom he had been too busy to investigate, and whose bills he had been too busy to watch.

Betty watched him rush about one day. Then she said:

"It is easy to hire hands and feet, Jim; it is harder to find brains."

Jim took the hint. He hired another clerk and a bookkeeper. This gave him more time to watch his stock. He began to personally visit the wholesale houses. On these visits Betty accompanied him. She was always quick to see the attractive things, and the things that customers would want. She had a typical feminine intuition in these matters. As they walked about the city she was quick, too, to grasp ideas. She gathered them from show windows, from store interiors, from delivery wagons, and from the city clerk and customer. While she tucked away somewhere in her head, to spring them on Jim at opportune moments, she frequently repeated her comment:

"It's great to meet people, Jim; it's great to get other's ideas; it's great to travel, sometimes, and see things."

Today Jim's bank account has grown to credible proportion. His store is built upon modern, practical lines. His customers live far beyond the limits of Elmsburg, and most of Elmsburg itself trades with Jim. Jim says, when he recalls the old cash box:

"A retailer needs a bank, not a cash box. Banks aren't just depositories; they're business builders—or should be."

"He needs a bright store front—it attracts people. And he needs good, bright lights for his show windows."

"He needs the right goods. But having them, he must be sure folks KNOW they're right. The only way they'll know is to tell 'em. And that's advertising. The retailer must advertise a lot, himself; but he shouldn't carry the whole burden. A manufacturer or wholesaler who won't help isn't worth dealing with."

"A retailer needs ideas; which he can get by meeting people and watching other's methods. I suppose these things, together with good service and honorable dealing, are just simple, every day principles. Just the same, I didn't always understand them; I learned 'em from Betty."

"And, by the way: the best asset any merchant can have is keen, woman's intuition, embodied in a wife who understands, and is interested in, his business."

How Show Cattle Dressed

Dressing percentages of International carlot show cattle show the 2-year-old Herefords owned by C. A. Hughes of Warsaw, Ind., to have killed out the highest. These cattle, which failed to win a prize on the hoof in the show, averaged 1,400 pounds, cost \$26 and dressed 65.2 per cent. They were bought by Armour & Co.

The killing sheets of Wilson & Co. show comparatively low percentages, but Armour's list is replete with high killing cattle. The Hayland Farms Shorthorn yearlings of Sharnsburg, Ill., averaging 1,135 pounds, dressed 64.9 per cent.

The grand champion load of yearling Angus, owned by J. Hubly of Mason City, Ill., and bought by Swift & Co. at \$45, dressed 64.4 per cent.

Duluth Rotarians have launched a movement to charter a vessel built at the head of the Lakes and take it through the Great Lakes-St. Lawrence tidewater route filled with Rotarians of the northwest to the annual convention of the International Rotary Club in Atlantic City next summer.

Be sure to see the exhibit of the J. I. Case Threshing Machine Company at the Minneapolis Tractor Show, January 31 to February 7. Tractors and other Power Farming Implements in space H-2, Overland Building.

What the small packers say about meat competition

During a recent hearing, a number of the smaller packers were asked for their opinions of competition in the meat industry.

The following quotations, we believe, are typical of the feeling throughout the entire meat packing industry:

Michael Ryan, President of the Cincinnati Abattoir Company, said: "I have been a competitor of the large packers for the last 40 years, and I have never found a disposition on their part to crush competition. . . . They have concealed nothing nor attempted any unfair practices."

T. Davis Hill, Vice-President Corkran, Hill & Company, Incorporated, Baltimore, asserted that: "The big packers cannot control the market for the reason that there are too many outside packers. . . . Some days the small packers make the market for the big packers. We have no fear of the big packers' competition. . . . The large packers have never tried to undersell us or drive us out of business."

G. H. Nuckolls, President of the Nuckolls Packing Company, Pueblo, Colorado, said: "So far as profits go,

my company has made a larger percentage on its turnover than any of the so-called Big Five."

J. C. Dold, President of the Jacob Dold Packing Company, Buffalo, New York, testified: "I recall no instances where we were ever hampered by any packer in the control of any stock or in the purchase of our supplies at competitive market prices."

John J. Felin, President John J. Felin Company, Packers, Philadelphia, Pa.: "I have known all the packers for years and have never seen any unfair dealings on their part. I know of no methods that have been adopted by any of them that were unjust, unfair and monopolistic."

There is probably no business in America more keenly competitive than the packing industry, and none that serves the public on a smaller margin of profit.

Swift & Company's profits during the first eight months of our present fiscal year have averaged two-fifths of a cent on each pound of meat and all other products sold.

Swift & Company, U. S. A.

Founded 1868

A nation-wide organization owned by more than 30,000 shareholders



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People wouldn't keep on coming in ever-increasing numbers unless we provided values that can be found nowhere else.

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Mail Orders Will Receive Prompt and Careful Attention

Sheep Growing in Northern Minnesota

By DANIEL DELURY

MR. DELURY is president of the Northern Minnesota Sheep Growers' Association. In this story he offers eminently practical suggestions based upon his own wide experience as a sheep grower. While Mr. Delury's immediate interests are in Northern Minnesota, his suggestions will apply to a large part of the northern United States.

SHEEP GROWING in Northern Minnesota presents itself in two main phases. First, the large herds shipped in from the West to fatten on the luxuriant summer feeding on the vacant lands in the northern part of the state, and, second, the farmers' flocks maintained the year round on the farm.

Within the last year, attracted largely by well directed agitation and advertising on the part of a number of "Cloverland Boosters" from Menominee, Mich., many western ranchmen, taking advantage of the stop-over shipping privileges, have shipped large herds into the vacant, cut-over districts north and west of Duluth. The wealth of pea vine, clover and other verdure, which for years has gone to waste, has astonished the herdsman, and it is safe to say that succeeding summers will see Northern Minnesota flooded with western sheep. Commercial organizations representing towns and cities interested in woolen industries and mutton production may well take hold of and aid vigorously this side of the development of the sheep industry.

I desire, however, to speak more particularly on the second phase—taking up Immigration Commissioner Sherman's slogan, "A flock for every farm." For the last three years our Northern Minnesota Sheep Growers' Association has been spreading the gospel, and as a result many farmers have made a good start in this industry. To prevent loss and disappointment we have urged that beginners start on a small scale and "grow into" the business. This is sound advice, and yet I often think that in our policy of cautiousness we have sometimes overdone it and given farmers the impression that there is some great mystery of some great, lurking danger connected with the industry. True, thoughtfulness and "loving care" are essential, but there is no great mystery or difficulty in the successful raising of sheep. No other animal on the farm gives us as little trouble or work as the sheep. No other requires as little shelter or feeding, or labor in caring for it, and, considering the labor involved, no other animal yields as large returns to the owner. It yields two main crops—the wool, marketed in the spring when money is scarce on the farm, and lambs marketed in the fall, and between times it is working for you night and day.

The profits and benefits derived from sheep are as follows:

1—Wool. 2—Lambs. 3—Fertilizing Land. 4—Clearing Land. 5—Killing off weeds.

These headings explain themselves. The first two can be calculated in dollars and cents, but I often think that the remaining items are as valuable as the wool and lambs. The sheep droppings are evenly distributed over the pasture, and particularly on the high places where most needed, and when it comes to clearing new land, sheep are exceedingly valuable. They will not chew down trees or grub out stumps, but when given a little aid by the farmer with axe and match, and piling of limbs, sheep will work wonders in clearing. The little shoots that usually keep stumps alive are "peaches and cream" for sheep, with the result that stumps soon decay. For many years I cleared land under the old methods, when land clearing proved a "horrible liability." Since I have inducted sheep into the service the clearing has been converted into a "pleasing asset." The tiny feet work

clover and blue grass seed into the new clearing and provide good pasture. Pasture is a money maker. Instead of sinking money into the land clearing game, why not make money out of the process?

When it comes to clearing up and making a new farm, a program, well defined, is just as necessary as in conducting church services or a Northern Minnesota Development Association convention. The selection of a house plot and a barn site is necessary. Then comes a system of fields and fencing. One new large field a year, three sides to be fenced, should be planned. And in that new field of labor, let the sheep be the missionaries. But let us not get the idea that sheep can be raised on brush. They will do well on the wild pasture of a confined area during summer, aided, if necessary, by a little tame pasture. But half of the sheep game consists in sending them fat into the winter. Good late and early fall pasture is therefore necessary, with early spring pasture to relieve at the other end of winter, and sheep work nicely into a Northern Minnesota farm crop program. By such a program I have reference to the raising of crops peculiarly adapted to Northern Minnesota. I have often wondered why so many farmers persist in gambling with Jack Frost to the exclusion of profitable crops that laugh at Jack's onslaughts. Why not grow more winter rye and rutabagas? These crops, besides being profitable in themselves, fit in well with the sheep industry.

May I suggest a pasturing and feeding program which I have followed for several years with success? Late in August or on September first, I sow a large field of winter rye. This provides late fall pasture up to the time snow comes. It also furnishes early spring pasture a month earlier than grass. If I do not sow the field of clover in the spring (with the rye as a nurse crop) I scatter over the rye, quite thinly, some clover and rape seed, harrowed in lightly. By the middle of May the sheep are taken from the rye and turned into the new brush field to be cleared, aided by whatever tame pasture is available. As soon as the grain is cut, the sheep are turned into the pasture to fatten on rape, clover, pigeon grass and weeds. This, with the brush land, furnishes pasture till October first, when a new winter rye field supplies pasture until snow flies. The sheep thus enter the winter in good condition and consequently get along nicely during the winter months on the "love in a cottage" treatment which is accorded them. By this I mean kindly treatment and very plain fare.

I have heard many lecturers in talking on sheep urge a winter bill of fare of alfalfa, silage, shelled corn, oil meal, ground oats and cow-pea hay, much to the discouragement of farmers who have none of these fancy feeds. My sheep seem to thrive and enjoy life on homelier food. I cannot urge too strongly the use of rutabagas. This is a very profitable crop, not injured in the least by the early frosts, and very accommodating as to the time of sowing. Rutabagas should be fed in moderate quantities and their excellence in sheep feed consists not so much in their food value as in their conditioning powers. They work in nicely with roughage, and I have brought a herd of sheep through winter in good shape on oat straw and rutabagas. But there should be added clover and pea vine hay if possible.

(Continued on page 36)



General Motors Trucks

A PRODUCT OF
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This 3½-ton GMC Truck of the New Dells Lumber Co., Eau Claire, Wis., has displaced four outfits like the one pictured below — starting at 7 o'clock in the morning this GMC truck makes 20 to 30 trips a day, delivering green mill wood over town under all conditions of weather.

Your business is probably different, but among the GMC models, ranging from ¾-1 ton to 5 tons, is one exactly fitted for your work. Behind every GMC truck is the backing of the General Motors Corporation—the largest company in the automotive business.



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Service Sales Co., Green Bay, Wis.
A. G. Jennings Motor Sales, New London, Wis.
Highway Service Garage, Marathon, Wis.
J. T. McCann Co., Appleton, Wis.

A. C. Homan Auto Co., Menasha, Wis.
Hathaway-Buick Co., Oshkosh, Wis.
Munising Motor Co., Munising, Mich.
V. L. Lipsett, Pickford, Mich.
V. L. Lipsett, Sault Ste. Marie, Mich.

J. A. Rummele Auto Co., Manitowoc, Wis.
Raab Motor Co., Sheboygan, Wis.
Johnson Motor Co., Fond du Lac, Wis.
Auto Supply Co., Plymouth, Wis.
Farm Power & Equipment Co., Lancaster, Wis.
Graham & Pecard, Bessemer, Mich.

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Amazon red and gray tubes are fit running mates for Amazon tires. They run thousands of miles beyond all expectations. They give an assured mileage that satisfies your trade on the service you give. Sell Amazon tubes with the same assurance that you sell Amazon tires, both will do all that you claim for them.

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POLARINE is the best oil the Standard Oil Company (*Indiana*) knows how to make for the lubrication of automobile engines.

It is the product of years of experience in the lubrication of every known kind of moving mechanism, including the actual operation of every make and type of passenger car and truck.

Because of the inherent qualities of **POLARINE**, and because of the fact that automobile engines are now so thoroughly standardized, **POLARINE** will lubricate perfectly—both summer and winter—the engines of 258 different makes of passenger cars and trucks.

At extremes of temperature, it shows the least change in body of any lubricant on the market, maintaining the correct lubricating body at all motor speeds and temperatures.

POLARINE has the correct adhesiveness to prevent its being sucked into the compression chamber during the intake stroke. It maintains a perfect seal during the compression and power stroke, preventing the escape of power past the rings.

POLARINE minimizes carbon deposits and eliminates unnecessary friction; it is, in fact

The Perfect Motor Oil

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CHICAGO ILLINOIS

The Farmer is Recognized

THE business of farming is becoming recognized as a real, live, intricate and highly accomplished enterprise by certain elements in metropolitan centers that have been prone to regard agriculture and animal husbandry as a lowly vocation suited to a particular type of men given the proverbial status of children "to be seen and not heard," and expected to produce food and clothing for consumers regardless of compensation. Perhaps it was the war and the world shortage of food and clothing associated with it that has brought the nation to fully realize the importance of the farmer. At any rate, the farmer is coming into his own. His sphere has been elevated, and his function is now recognized as the stabilizing influence upon public welfare and the most important element that enters into our social and industrial structure.

Under the caption, "Agricultural Crisis," the Michigan Investor, a financial publication, preaches the following editorial sermon on the business of farming:

"Farming as conducted today is not simply a business but a puzzling composite of businesses. It requires brains, resourcefulness, grit, grace and gumption, and then some, to succeed. This food manufacturing business has many ramifications and it requires specialization, just as in other manufacturing lines. You do not expect the machinist nowadays in the factory to complete his machine, not to mention packing it for shipment and selling it. No, he does a certain piece of work on the machine. The farmer takes his farm. He dabbles in this, that and the other thing. He has horses, cows, sheep, pigs and chickens. He produces fruit. He raises all manner of grains. He operates all kinds of machinery, tractors, trucks and automobiles being late additions to the list. All this is delightful from the viewpoint of making a man versatile, if you forget the financial end. Then he prepares his product for market and sells it, or rather, dumps it, in most cases.

The farmer is the greatest gambler in the world. He has varieties of soils even on his own farm, with no two of his fields just alike and responsive to the same treatment. Then he has the weather to deal with, the weather with its dry and wet, hot and cold programs that nobody can guess. As a result what you do this year is no guide for next year and so it is learn

and un-learn all the time. The farmer is fighting all the time with diseases and insect pests. So it is a gamble with every crop he raises and he is not sure of any returns until he has the money in his pocket.

"Small wonder is it that thousands are leaving the farms and thousands of others are getting ready to leave. This is shown by the number of auction sales in country papers, in which the farm owner invariably gives as his reason for selling that he has "decided to quit farming." It is getting to a point now where the percentage of men engaged in farming is far too small and pretty soon there will not be enough food to go around.

"What can be done about it? Is there any panacea for our ills? A great movement has been started toward state and national farm bureaus, to work along educational, legislative and marketing lines. It is pointed out that other interests have lobbyists at work at the state and national capitals, while farming has been going it alone and living on the crumbs left on the table. Farmers have been living largely on air and freedom and glorious independence, but that does not put bathrooms in farm homes or provide the ordinary decencies that city folks enjoy. Farmers must make more money, that is the plain truth of the matter, and other interests must not put one thing in the road to block their way. Cities can do much in the way of providing free market space, also distributing depots that will take everything that the farmer ships or brings in at fair prices."

What's a Farmer?

A farmer is:

A capitalist who labors.

A patriot who is asked to produce at a loss.

A man who works eight hours a day twice a day.

A man who has every element of nature to combat every day in the year.

A man who is a biologist, an economist and a lot more lists.

Who gives more and asks less than any other human being.

Who takes unto himself for his own sustenance and that of his family, those of his products that other people will not utilize.

Who is caricatured on the stage and in the daily papers but who can come nearer taking hold of any business and making it go than any other American alive and in captivity.

That's what a farmer is.—Drover's Telegram.

Farm Machinery

"What would a man say to his wife if she were to leave her \$50 sewing machine out over night in the yard in a rain storm. Well, he would do a plenty if she persisted in leaving it out in the weather. And yet the same lord of creation has left his farm machinery standing in the fence corner. Many of these costly tools stand out unprotected all winter. What should your wife, Mr. Farmer, do to you? She should get a rolling pin after you and make you house them now. You can save a \$10 bill any day this week by acting on this suggestion."—Sleepy Eye (Minn.) Progressive.

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Easily Sawn By One Man.
Easy to move from cut to cut. Make big profits cutting wood. Cheap and easy to operate.

OTTAWA LOG SAW

Does 10 men's work at one-tenth the cost. Makes work easy. Engine can also be used for running pumps and other machinery. Saw blade easily removed. Write for our low price, 10-Year Guarantee.



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We make it our business to keep customers, and to give
QUALITY, Service, and last, but not least,
THE RIGHT PRICE.

Write or wire up for prices

DAFTER CHIPPEWA COUNTY MICHIGAN

POULTRY

Feeding for Winter Eggs

By A. C. SMITH

Professor, Poultry Husbandry, University of Minnesota Farm

THE essentials for good winter egg production are:

1. Mature Pullets, or Hens That Moulded Early.
2. Comfortable Quarters. (Roomy houses that are free from drafts, are warm, and have dry floors).
3. Proper Feeding for Production of Eggs.

(a) A properly balanced ration which means each ingredient or substance in right proportion to maintain the bodily needs and in addition to provide such material that the hen may produce eggs in goodly number.

(b) Variety sufficiently wide to stimulate the appetite, supply materials for bodily heat and energy and furnish egg-forming ingredients.

(c) A method of feeding that compels exercise.

(d) Sweet wholesome feeds. Tainted and damaged grains must not be used.

(e) Foods that are as far as possible home-grown and do not entail cartage, because cheaper.

Four classes of foods are absolutely necessary in a winter laying ration:

1. Grains, for energy, heat, flesh and egg-forming materials. Usually fed in two forms—ground, called mash, and in the kernel, called scratch-feed.
2. Greens, for aid to digestion, principally.
3. Animal Foods, rich in egg and flesh-forming materials, the most essential as well as most expensive ingredient in all laying rations.
4. Mineral Matter, an aid to digestion, supplies material for shells and bodily maintenance; as sharp grit, oyster shells and charcoal.
5. Hard Grain Feeds or Scratch Feeds. Cracked corn, wheat, oats, barley and seltz are suitable. Corn and wheat are the most palatable. Whole corn satisfies the appetite too quickly, and should be cracked. Wheat is now allowed in mixed poultry feeds to the extent of only ten per cent. It is not absolutely necessary, as both barley and corn make good substitutes, (as do mixed scratch feeds, if not too expensive). At present writing oats are cheapest of all grains, but have too much fibre to be used exclusively as the hard grain feed.

While variety in the grain ration is desirable, it may be supplied in the mash, green and animal foods, with some saving at present prices and scarcity of certain grains. Use of small grains as grown on the farm is recommended. Corn should be cracked and sifted, and the finer particles used in the mashes.

Feed about twenty-five per cent of daily ration of cracked or whole grains in the morning. Twenty-five per cent at noon, and fifty per cent at night. (With dry mash before the fowls, feed approximately one quart per day of hard grains to twelve fowls, but appetites should govern this amount).

When weather is very cold fowls may be kept comfortable by constant exercise, which may be induced by feeding very little grain at a time, and often, in a deep, loose litter.

Formulae for Laying Mashes.
(Mix Thoroughly, by Weight).

1. Equal parts of corn or hominy meal, bran, wheat middlings, finely ground oats, alfalfa or clover meal, with two parts of beef scraps.
2. Six parts of corn or hominy meal, 4 parts ground oats, 4 parts wheat middlings, 2 parts bran, 2 parts alfalfa or clover meal, 7 parts beef scraps.

(Continued on page 33)



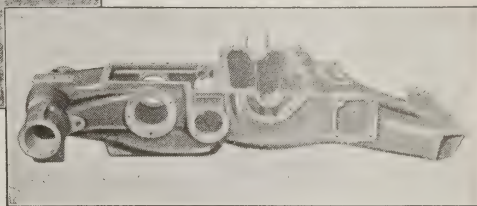
Illustration shows Case 10-18 Kerosene Tractor pulling 2-bottom Grand Detour Plow.



Look for the EAGLE
Our Trade Mark

To avoid confusion, the J. I. CASE THRESHING MACHINE COMPANY desires to have it known that it is not now and never has been interested in, or in any way connected or affiliated with, the J. I. Case Plow Works, or the Wallis Tractor Company, or the J. I. Case Plow Works Co.

Below: Showing the Main Frame of the CASE 10-18 Tractor, cast in a single piece. Holes for bearings on each side of frame are bored in one operation by a special machine of remarkable accuracy.



CASE - The Tractor with Strength that Backs its Power

One of the outstanding features of superiority of the Case 10-18 Tractor is the rugged strength of its construction.

Now, bear in mind the difference between *Strength* and *Power*.

When you think of the Tractor you have, or the Tractor you ought to have, you probably consider it in terms of power.

Right!—as far as it goes. The proper proportion of power to work is an absolute essential to

economy and efficiency of Tractor operation. But tractor Strength, as embodied in the Case is the factor that stands between you and repair bills and the more serious losses due to breakage or delays.

For instance, the frame of the Case 10-18 Tractor is cast in a single piece. In this one casting are fitted the bearings for transmission, rear axle and motor. Obviously, bearings, shafting and gears cannot get out of line. Once in place, they are in correct alignment throughout the life of the tractor.

Other Features of the CASE 10-18 Kerosene Tractor

- Four cylinder motor, mounted crosswise. Eliminates bevel gears, chain or worm drive.
- Simple and accessible clutch, pulley mounted on crank shaft,—where it belongs. It is on the same side with the steering gears making it easy to line up with belt driven machinery.
- Automatic control of motor temperature assures fuel economy.
- Cut steel gears running in oil and dust-proof throughout.
- Hyatt Roller Bearings.
- Worm-driven fan with friction safety clutch.
- Two speeds: 2½ and 3½ miles per hour.

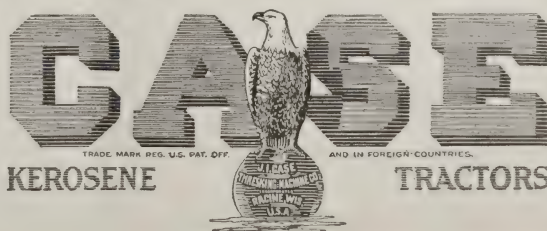
The Case 10-18 Tractor will most economically handle such work as operating a 2-bottom plow (as illustrated); 22 shoe grain drill; two 6 ft. binders; 8 ft. double-action disc harrow; the largest manure spreader; Case 20 x 28 thresher with feeder and wind stacker; feed mill, or any other machinery of

similar power requirement. Write for booklet illustrating complete details of Case 10-18 construction. It will acquaint you with the special advantages of the Case 10-18 and enable you to judge all tractors with a new understanding. Free, on request,—a post card will bring it.

J. I. CASE THRESHING MACHINE COMPANY, Inc.
Dept. CM-1, RACINE, WIS.

Making Superior Farm Machinery since 1842

NOTE: We want the public to understand that our plows are NOT the Case plows made by the J. I. Case Plow Works Co.



When writing advertisers, please mention Cloverland Magazine.



The Dawn of a New Year Brings the Dawn of a New Era

By JOHN A. DOELLE

Secretary-Manager Upper Peninsula Development Bureau

THE dawn of a new year brings the dawn of a new era to Cloverland, the upper peninsula of Michigan—the transition of an experiment to a proven reality and the permanent establishment of an industry which bids fair to rank among the leading activities of the region—sheep raising.

The transition from an experiment to proven reality—that is a broad statement. There are some who will say that sheep grazing in upper Michigan is still in the experimental stage—others who will contend that the time is not ripe for a definite opinion on the success or failure of the experiment, and again it is a deplorable fact that there are many in upper Michigan who know not nor care not—and yet who are willing to dampen the ardor of those who do know and do care by unthinking, destructive criticism.

To convince this latter class and to quiet, if possible, the unwarranted criticism which has sprung up from certain well-defined quarters, the "proof of the pudding," as far as sheep-raising in Cloverland is concerned, is herein presented.

During the season of 1919 Upper

Michigan grazed approximately 45,000 head of sheep, representing about twenty-five ranches—all acquired within the past three years. During March—shearing time—every grazer reported a substantial net gain from the sale of the wool, and many declared that the grade of the material was far better than they had ever been able to produce in past years.

Financially, the advent of fall and the marketing of the lambs was not all, possibly, that might be wished for, but this was due entirely to low, irregular market conditions, and, if we are to believe the grazers themselves, not at all as a result of the pasture.

Almost immediately thereafter the Upper Peninsula Development Bureau, at Marquette, was besieged with correspondence of a decidedly varying nature. For instance, a drygoods merchant "understands" that some sheep men lost money this year, and asks why. A grocery salesman "has heard" that the sheep didn't pan out

well at the market. He wants to know why? They are entitled to know. But first, why not let the sheep men themselves give their own versions of their experience during the season just passed.

Among the correspondence is a letter from the Kreetan Company, Drummond Island (Chippewa County). Mr. L. J. Labelle, the writer, and vice-president and general manager of the company, interestingly describes his experience with 800 head of sheep this year. Here is the letter, in part:

"We think one of the mistakes some of the Westerners have made in bringing sheep to the Upper Peninsula was that they expected clear grazing lands similar to that which they have in the West, only that these lands would be covered with rich clover and grasses of all kinds, and thereby have crowded too large a number of sheep in the area of land they have for them.

"Our experience here has shown that where the cut-over lands are not cleared of the lying down timber, we require naturally a larger area for a certain number of sheep than if it were all cleared over. As an experiment last season, we cleared

up some hundred acres, which cost \$4.32 per acre to clear. This is high and accounted for by the fact that the labor engaged to do this work was very poor and inexperienced. We figure that the ordinary cut-over lands could be cleared for probably half this amount, and when this clearance is made we have some of the best pasture land in the northern part of the states.

"We purpose cleaning up several thousand acres of this land and figure that it will more than pay us a little later. In the clearing of this land we do not pay any attention to the stumps. We leave the stumps as they are, just clearing the down timber, and it is surprising the results we get in the increased area of pasture land.

"We have only a few sheep, as you know, about eight hundred. One drawback that we have just now is the feeding of our sheep during the winter months. This will be overcome in the course of a few years when the men who are taking an interest in the sheep raising will be raising their own hay and grain.

"We have something like two hundred acres of this land cleared now for this purpose. We purpose buying a large number of ewes again next year and we will continue so until we have thousands of sheep on this pasture."

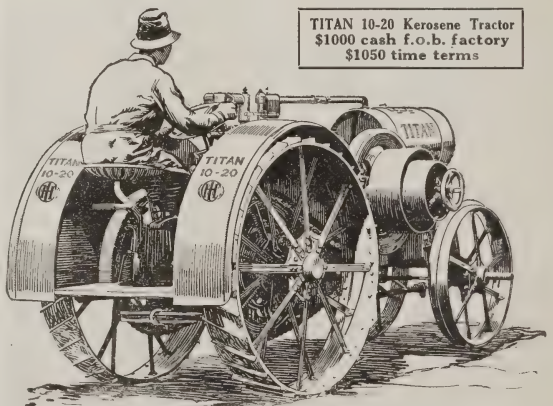
Here is a man that has enough interest in his own enterprise to study its needs and get the most out of the unusual advantage which his location affords.

Building an Agricultural Empire

THE business of converting raw, cut-over land into a producing agricultural empire is going forward rapidly in Cloverland. In fact, this country of great possibilities earned a reputation for agricultural progress on new farms unequalled in any section of the United States during 1919. Government experts are quoted as referring to Cloverland as "the greatest agricultural and live stock section in the United States if not in the world."

But the work of building such an agricultural empire, practically reclaiming it from the wilderness, cannot be accomplished without proper mechanical equipment. And the most important item of equipment for the cut-over farmer today is the internal combustion tractor. Power is needed for practically every task incidental to transforming grassy, brush-grown stump land into fertile, producing acres—power such as that furnished by International Harvester kerosene tractors—Titan 10-20, International 8-16, International 15-30.

These tractors are finding their way into Cloverland in increasing numbers. You will find them, because of their economical, efficient, dependable operation, busily engaged every day of the year on the new farms of Northern Michigan and Wisconsin and Northeastern Minnesota. They are used for pulling up stumps, clearing the land



TITAN 10-20 Kerosene Tractor
\$1000 cash f.o.b. factory
\$1050 time terms

of brush, hauling logs, sawing wood, breaking new land, harrowing, seeding, harvesting, threshing, grinding feed, and numerous other tasks.

Are you interested in getting the biggest part of your land under cultivation as soon as possible?—doing it quickly, cheaply? Then let us tell you more about International tractors and how they can serve you.

INTERNATIONAL HARVESTER COMPANY of AMERICA, Inc.
CHICAGO, U.S.A.

BRANCH HOUSES: SAGINAW, GRAND RAPIDS, Mich.; GREEN BAY, EAU CLAIRE, Wis.; ST. CLOUD, Minn.

The Richard brothers, with a small though profitable flock at McMillan, describe their experience in this way:

"The sheep are doing fine and we are keeping seventy-nine ewes this winter. Intend to purchase 100 ewes next spring if everything goes well, also fence 180 acres more, which should give us sufficient pasture for several years."

"The lambs were put on the market this year, right off this cut-over land, and netted an average of \$9.25 each. The fifty-one sheep we kept over last winter brought us in a little over \$500.00, and we kept the ewe lambs. Not so bad, is it?"

"If at any time you should happen to come through this way, would be very glad to have you stop and see our little wool and mutton factory."

The experience of Barber, Raschau and Cassabonne, the largest sheep operators in the peninsula, is particularly notable, since they arrived in Iron County late in the season with about 8,000 head and have had the late fall and early winter problems to combat with. Here's what they say about their experience thus far:

"We have been very busy getting our sheep sheds ready, but we have everything in shape now. The sheep are doing fine."

"As regards certain criticisms on the sheep game up here, it is just like an old gossip talking about her neighbors, for there are no facts to this talk. The losses, if there were any, this year, were not the result of the country or the pasture."

"Jack" Corson, located in Luce County, near Newberry, with 1,500 head of sheep, tells us what CAN BE DONE with sheep in Upper Michigan, by a man who knows the game. And he tells it in one sentence. "Jack" writes:

"My sheep topped the East Buffalo market for the day of the sale, averaging eighty pounds."

"Jack" is wintering part of his flock. He expects to increase his holdings by several hundred head next year.

"I'm here to stay," he said. "I've closed out in Wyoming. I'm going to stake it all on Cloverland."

Carley and Keen, at Limestone, Alger County, with about 2,000 head of stuff, expect to branch out again in the spring with a big addition to their flock. H. W. Carley declared, recently, while visiting at the office of the Bureau:

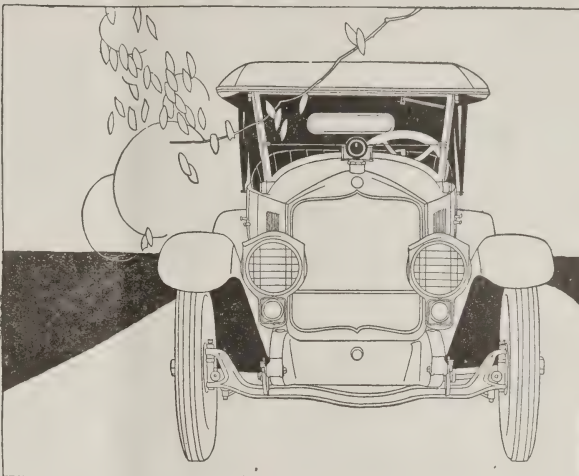
"I am very well satisfied. Of course, I had my troubles, like all the rest, but I'm going to stick because I am sure the country offers great possibilities for the sheep game. My wool crop this year was exceptionally good, and my stuff was in prime shape when it went to the market. We all struck a snag on prices—but that in no way reflects on the pasture. Hundreds of the western operators bumped against the same situation. The sheep market has been consistently poor this year."

Now, just a few words, editorially, on the particular advantages which we claim the Upper Peninsula of Michigan offers. In the first place, the vast acreage of cut-over lands now lying idle has prompted the larger owners to offer "introductory" prices to the new settlers. Consequently, some of the best grassed areas sold this year and last for from \$12 to \$15 per acre. Furthermore, easy terms, including option and lease, with reasonable annual payments, were offered in contract.

Then there is the proximity of Cloverland to four great live stock markets—East Buffalo, Detroit, Chicago and South St. Paul. All of these four points are within a forty-hour haul from any point in Upper Michigan. Transportation facilities are adequate, and the new tariff No. 150 provides decidedly reduced rates from western shipping points.

And what is still more attractive to the new settler, the proximity of schools, churches and villages to practically every cut-over area in Upper Michigan offers liberal opportunities for education, religion and the provision of household commodities to the families of settlers. This is not always the case in a grazing country, since many ranches are located miles from a church, schoolhouse or town of any size. The railroad systems of Upper Michigan, too, with their spurs, reach these cut-over tracts in almost every case.

The problem of winter feeding—that phase of the live stock game which is causing the sheep and cattle men all over the country so much worry this year—finds a minimum of seriousness in Upper Michigan. Like



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in any other branch of industry, preparation is required. But it is claimed, justifiably, that the adaptability of Upper Michigan's soil and climate to root and grain crops far surpasses that of any other region in the country. As one rancher puts it:

"Clear and plant 100 acres to grain and root crops early in the spring and the problem is solved for the winter to follow. The rancher in Upper Michigan can afford the extra 100 acres when he gets the land for from \$12 to \$15 an acre, and the initial expense of clearing, planting, and reaping surely represents but a small figure compared with the outlay demanded for winter feeding a la wholesale house, year after year."

With these things in our favor, therefore, we are going to push the live stock game in Cloverland more vigorously than ever before. We are satisfied that the project has passed the experimental stage. The western sheepmen themselves have convinced us on this point, and these efforts will not cease until every desirable cut-over tract is grazing a flock of sheep or a herd of cattle.

Menominee Saw Co.

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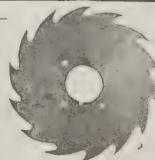
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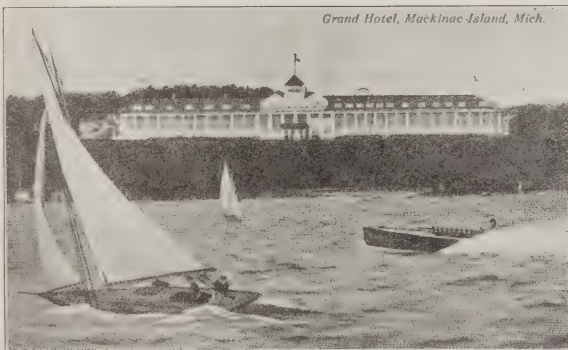
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General Manager



Out of Doors—

Conducted by A. N. WALLACE

A. N. WALLACE is a real outdoor man. Forests and streams aren't just diversions with him—they're passions. It was at a camp fire, on the shores of a north-Wisconsin lake, that he said: "If it weren't for my wife and children I'd be just a bum; I'd never leave this."

And he stared into the fire, puffed his pipe and sighed his real content. When this Outdoor page was determined upon, Wallace was looked up. After a lot of growling he consented to become the Outdoor editor. He wrote three paragraphs of his first story. Then he tore it up, turned from his desk, in disgust and said: "Hell, I can't write!" It required a lot of coaxing to keep him at it.

Perhaps he can't write. But he *can* hunt and fish and he knows the woods and every detail of every life that is lived in the woods. When these little stories reached the editorial office a staff member was told to rewrite them. He tried, and gave it up.

"It may not be accepted style," he said, "but there's something so darn human, and real about them that I'll only spoil them. Better let them run."

So they are printed practically as written. Knowing Wallace, the Editors venture to predict that, once he becomes warmed to his new job, and begins to put his real self into it, Cloverland readers will have an Outdoor section that no magazine anywhere will excel.

We want you to know Wallace. Write to him. Ask him questions. Send him your own outdoor experiences. Send him pictures. Address him, care of Cloverland's Green Bay, (Wis.) office.

THE EDITORS.

ICE FISHING

NOW that the hunting season for most all kinds of game is closed, and Bill and I are feelin' that we haven't had enough of the outdoors, we're goin' ice fishing!

Maybe ice fishing doesn't sound exciting. Just the same, we get a good many days of winter sport that way. Only you gotta know how.

This is how we do it. The last of the week—usually Saturday—we get out our old hunting clothes. Then we get our equipment ready. That means an axe, an ice chisel, lines, wire reels and a pal of minnows. Live minnows can be caught with a dip net in most any stream, any time of the year. Then, with a good thick steak, some potatoes, some bacon, maybe, and a lot of other grub stowed away in a basket, we're ready to start.

After a ride of eight or ten miles we arrive at the lake—usually about four o'clock in the afternoon. Of course, it's too late to do any fishing. The lines can't be left set all night, nor unattended. So while Bill is getting the camp ready, and is chopping firewood for the night, I get out on the lake and cut holes in the ice—usually about a foot across—so as to have them ready for the lines early the next morning.

We've found that we have better luck on these short fishing trips when we cut the holes in the afternoon or evening, a full twelve hours before we want to use them. The noise of chopping on the ice seems to drive the fish from their usual feeding places and frightens them for some time after. So we get the holes all cut and ready, except for the thin crust that forms overnight. This crust we cut out with an ice chisel—and we don't make a lot of noise doing it, either. Then we're ready to set the lines.

Setting the lines takes some care. First, we use a line with some sort of weight attached to it, to test the depth of the lake. This is mighty important. On most lakes you want to fish with the bait about two or three feet from the bottom. After we get the depth, we fix a small sinker to each line, about a foot above the hooks. This sinker shouldn't be any larger than

necessary to keep the bait from coming up and swimming around near the surface or in the hole.

Bill and I have the best success when fishing just off the sand bars, or on the edge of deep holes where the water is ten to fifteen, and sometimes twenty feet deep. We also find that most of our fish are caught where the water isn't very weedy and in about ten or twelve feet of water. It's always well to look into the hole and see that the bait will not get tangled up in a lot of weeds. When we find a hole with a lot of weeds in it, we pass it up, as we very seldom are able to land a large fish where it has a chance to get into mass of weeds.

Next comes the real setting of the lines. This must be done carefully. First, we place a small stick, three or four feet long, on the ice and across the hole. The reel, with forty or fifty feet of line, is tied to it. Then we unwind the proper amount of line. We hook the minnow carefully and place it in the water just as soon as possible. Its surprising how quick a minnow will freeze stiff on a cold winter day.

One can't be too careful in hooking a live minnow. If they're handled roughly they soon die. The hook should be placed in about the middle of the back, in the fleshy part, on one side of the backbone, with the point toward the head. You will find that in this way more large fish will hook themselves, more often and better, than with any other manner of baiting.

Also, the hook shouldn't be too large and shouldn't be placed too deep in the minnow's back—because if it is the minnow will not be active in the water and will soon die.

When these things have been done—and they don't take as long as telling about them—we're ready. We leave the ice for about an hour. After that we make the rounds of the lines about every half or three-quarters of an hour. Sometimes there's nothing doing; sometimes a fish or two; then again we find a line run out and the minnow gone, telling the story of a big one that's been there while we were gone.

The real sport begins when we find



ne hooked tight and making the line
ut circles around the hole. Then it's
question of hauling him out, hand
ver hand, and playing him for a po-
ition directly under the hole. It
ounds easy—but many a fish has been
st at the last moment in trying to
ft him out before he was in the right
osition.

Bill has a habit of sitting on the
xe handle and handing out wise ad-
ice, while I'm steering a wet line,
ith wet hands that are freezing fast,
nd a big 'un is fighting down below.
"Gee 'im over, boy, gee 'im over,"

TRAPPING

There's a great market for furs.
very farm boy—or man, for that mat-
er—can make a pretty fair piece of
extra money if he can supply the fur
arket. This means trapping, and
ome kind of trapping can be done
ear almost every farm.

Before discussing trapping, Bill and
want to lay down a couple o' com-
mands:

First—Don't trap more than your
ountry can stand!

Second—Help re-stock the woods
ith at least as many fur-bearing an-
imals as you take in your traps.

By these commands we mean, first
f all, that you leave enough runways
lear of traps to let some of the an-
imals get through the winter, and raise
amilies next year. And second, we
ean that when spring comes, you do
everything you can to protect the an-
imals then breeding, and the families
hey bring into the world a little later
n.

Let 'em live! We're killing our
ame off at a great pace. If we keep
t up, it won't be many years before
here'll be no game. That isn't a good
hing for either the sportsman, nor
'or the country. We often think
f small game as "varmints," that kill
ur chickens or do a lot of harm in
he fields or gardens. Come to study
heir habits real close, and we begin
o see that they do a lot more good
han we generally know.

As for trapping:

Trapping can begin in October; it
ust end in May. Furs aren't good
or anything during the other months.
Also, it's better to stop too soon, than
ake a chance the other way. The
reeding season begins early, anyway;
nd the game laws must be consid-
ered. They're different in every
tate. Look 'em up before you begin.

Mid-winter is the best time for
general trapping. The fur is heavy and
hick then. The furs of the mink,
artin, muskrat, fisher, and beaver
ren't really prime until that time.

To be a really good trapper means a
ot more knowledge than one would
hink for. Just settin' a trap isn't
nough. Those who trap must know
omething about the habits and na-
ure of the animals they're after.

The sense of smell alone, so highly
eveloped in every wild animal, will
ften baffle the trapper. However,
his very sense can be made use of.
t attracts the animal to the right kind
of bait. And, if any of the several oils
re added to the bait, the animal will
be even quicker to get the scent and
come to the trap.

Among the easiest oil to get, and
one of the best to use, is ordinary fish
oil. It can be bought from most drug-
lists or fish dealers. Or it can be
made by cutting fish into bits and al-
lowing them to stand, in a glass jar, in
the sun for ten days or more. At the
end of that time a rancid oil will be
orned. A few drops of this, added
o the bait, will attract animals from
ome distance—especially the water
nimals.

Oil of anise, which also can be

says Bill, "an' keep your hands wet—
nothin' like nice wet hands in this
weather to keep a man's mind on the
job." And Bill grins.

But it's Bill who let's out the loud-
est whoop when a twelve-pounder fi-
nally comes up through the hole, with
the last careful lift. And it's Bill who
generally takes the big fellows out to
the old stump and there, in the same
cold wind, cheerfully scraps away the
scales and fixes 'em all ready for the
frying pan, on the cook stove, over in
the shack.

After all, Bill's a good old scout!

bought from druggists, attracts many
animals. Musk, oil of fennell, oil of
lavender and other oils are recom-
mended by trappers. These oils can
be added directly to the bait. Or a
fish, or piece of meat can be dipped in
them, and "trailed" around near, and
toward, the trap. The soles of the
trapper's boots can also be coated with
them so that, walking about, he will
make trails. The trail should always
lead to the trap.

The making of trails is in itself an
art, and will not be gone into here. It
is well enough, however, to apply one
or the other of the oils, or just a coat-
ing of grease, to the soles of the boots
when the trapping grounds are
reached. This helps to kill the human
smell. It is also well to remember
that gloves, preferably of leather,
should always be worn. Traps
shouldn't be handled with the bare
hands. Then, too, traps should be
clean. They mustn't be rusty nor
"smelly." They can be washed first
in a weak lye solution, greased and
then held, (with gloves) over a fire in
which a little bacon or pork rind, or
chicken feathers, is burned.

Probably the animals most likely to
abound everywhere are muskrats.
They are, therefore, easiest to study,
and not too hard to trap.

But Bill and I want to repeat our
warning—even in taking muskrat,
don't be a game hog. Take the sur-
plus, not the whole colony.

Muskrats like the grassy banks of
lakes, swamps or rivers. They like
to live among reeds and flags and wa-
ter lilies. In summer they burrow in-
to the banks. Their entrances usually
are underground, or under water.

In fall the muskrats form colonies.
Then they go out into the water prop-
er, and build their houses. These are
made of reeds, sticks, grass and mud.
The living room is from sixteen to
twenty-four inches in diameter, in
about the middle of the house, and has
an underwater entrance.

The rats breed three times a year
and have litters of from four to eight.
Remember, however, that a lot of
things happen to the young muskrat,
and that many of them die or are
killed before reaching maturity. So
don't kill off too many of the parents
in winter.

The rats eat roots of the water
plants, and like carrots, apples, pars-
nips, and sweet corn. These, there-
fore, are the baits to use. Some trap-
pers tell us to put the musk, from the
glands of the animal (located on both
sides, under the root or the tail) on
the bait or trap. This is a good enough
suggestion if you have the musk. But
it should be taken in spring, and pre-
served in alcohol. Since you probably
haven't got it, it is well to add that it
isn't really necessary. Use fish oil in-
stead, or nothing at all if you can't get
fish oil.

The rats move from their winter
homes to the shore, and to the water
plants, to feed. They leave distinct
trails, or runways, in consequence of
this travel. The first step, therefore,

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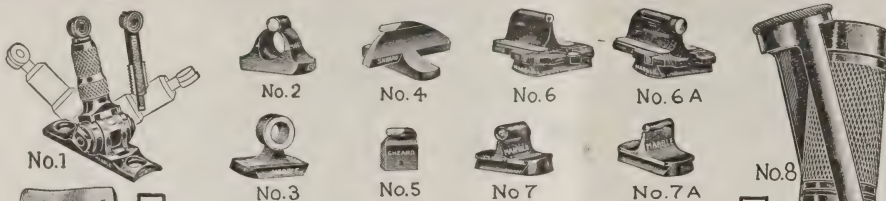
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No. 2—Marble's Improved Front Sight. Ivory or gold bead—1-16, 3-32, or 1-8 in. Fine for running or snap shots. Used by many professionals who do fancy shooting. \$1.10.

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No. 6—Marble's Duplex Sight. Combines "fine and coarse" sights in one. Aides exposures, sure shots. The 1-8 in. white enameled bead folds down when the 1-16 in. gold bead is being used. \$1.65.

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No. 7A—Marble's Standard Front Sight with 1-16 in. gold or ivory bead. Can also be furnished with 3-32 or 1-8 in. bead. \$1.10.

No. 8—Marble's Waterproof Match Box needed by every soldier, hunter, camper. Guaranteed moisture proof. 50c.

No. 9—Marble's Pocket Compass—Polished brass case. Acute bearing. Guaranteed accurate—\$1.00. With revolving dial. \$1.40.

No. 10—Marble's Coat Compass. Attaches to outside of coat or shirt. Always in sight. Balances as readily, direction can be taken while walking. \$1.25. With revolving dial. \$1.65.

No. 11—Marble's Climber Gaff. Humane—doesn't rip nor tear. Holds any fish ¼ to 20 lbs. Quicker, surer than landing net. \$1.10.

No. 12—Marble's Folding Fish Knife. Cuts, rips, scales. Blade folds into handle. Locks when open. Carried in pocket. \$1.50.

No. 13—Marble's Auxiliary Cartridge. Permits target practice and small game shooting with big game rifles at little expense. .22 and .32 pistol cartridges used. Made for most all sporting rifles. Write for circular. 85c.

No. 14—Marble's Expert Knife. Thin, teen, high grade steel blade especially adapted for dressing skins and furs. Corrobin handle—aluminum tip—blade 5 inches—weight 3½ oz. (Sheath included). \$2.50.

No. 15—Marble's Woodcraft Knife. Combines the good features of all hunting knives. Adapted for sticking, skinning, cleaning, slicing. Biggest value on market. Blade, 4½ in.; laminated leather handle, 3½ in.; aluminum tip; weight, 5 oz. (Sheath included). \$2.00.

No. 16—Marble's Ideal Hilt Knife. Blade of finest cutlery steel. Stag handle. (Sheath included). 6 in. blade, \$3.25; 6 in., \$3.50; 7 in., \$3.75; 8 in., \$4.00.

No. 17—Marble's Ideal Knife. Laminated leather handle. (Sheath included). 5 in. blade, \$2.75; 6 in., \$3.00; 7 in., \$3.25; 8 in., \$3.50.

No. 18—Marble's Nitro-Solvent Oil. Best for guns, rifles, fishing reels. Cleans, lubricates, polishes. Never gums. Dissolves residue of all black and smokeless powders. 2 oz. bottle 25c. 6 oz. can, 50c.

No. 19—Marble's Rifle Cleaner. Brushes of softest brass points, on a spiral spring core, which forces brushes to follow twist, rapidly cleaning out all lead, copper, rust or powder residue. State calibre wanted. 55c.

No. 20—Marble's Jointed Rifle Rod. Brass sections—steel joints—swivel tip—wood handle. Solid as a one-piece rod. Jagged and slotted detachable tips and canvas case included. All calibres, .22 to .50. Length, 22 to 34 in. State length and calibre wanted. \$1.10.

No. 21—Marble's No. 6 Safety Axe. (Guarded) Length, 12 in.; weight, 22 oz.; history handle. Lead lined guard. Solid steel blade, 2½x4¾ in. Can be carried in pocket or belt. \$2.00.

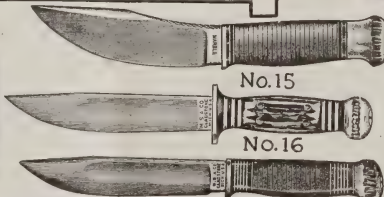
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No. 23—Marble's No. 9 Camp Axe. Handle, 14 in.; weight, 22 oz. Solid steel blade, 2½x4¾ in. \$1.25. (Sheath 65c extra).

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is to find these runways. They can be seen, starting from the houses, and here and there through the ice. The landing places must be found.

That done, use a number one, or two, steel trap. Set the trap two inches under water, covering it with drift leaves or grass. It can be baited or left "blind." A carrot, crushed a little to let the juices escape, or an apple, are good bait. The traps should be staked in deep water, the stake being driven to one side, and not in the runway. Be sure to stake in deep water—the muskrat, when trapped, will immediately turn toward the water, and the trap will drag him down to a quick and comparatively easy death by drowning. If the trap is fastened near the shore the rat will twist and gnaw and will not only escape, but will suffer pain and perhaps death.

Another good set is made by using a fallen log or fence post. With a hatchet, a bed, large enough for the trap, is chopped into the log. The chain ring is then stapled to the under side, as deep down as possible. The log is then set slanting, into the mud at the bottom of a creek or lake, with the trap an inch or two under water. The muskrat will climb this log and step into the trap.

A board can also be used, cleats being nailed upon it, like a ladder. Traps are set between the cleats and several of them may be set. The chain rings are fastened to the under side of the board. This board is then pushed into the stream, and a stone placed on the lower end to weight it down. The traps can begin under the water and one or more may even be set over the surface. If above the surface, however, be sure the chain goes down into deep water—even if you have to add wire. If you don't set muskrat traps so that the rats will rush them into deep water, many of your catches will get away.

Muskrats are curious. Sometimes they will step into a trap that has nothing but a piece of shiny tin, or a minnow, as bait.

All this would hardly indicate a great power of smell, or need for caution. It is true, of course, that muskrats haven't the cunning of the fox. They are trapped under water, and that takes the human smell from the traps. At times, too, they don't seem to mind the human presence very much. But as a whole, care with traps—even if it's only to get into the habit, in case you're going after other animals later on—is a mighty good thing.

Taken all in all, good, clean traps, treated with a little grease, and handled with gloves, get more catches than the other kind.

JUST HUNTING

Bill and I hunt deer in upper Wisconsin. We shoot one buck apiece. This doesn't mean that we just bring home one buck each. There is a difference.

A lot of fellows go up into the woods and shoot at everything that moves. They shoot first and investigate afterward. Maybe they've shot a polecat, or a chicken hawk, or another hunter; or maybe a doe. Whatever it is they "just let it lay."

Bill wouldn't let me hunt that way even if I wanted to. If he ever caught me blazing away at a moving shrub, or something indefinite out in the underbrush, he'd brain me with my own gun.

Bill has convictions. He says that shooting one buck and no more, is not a matter of law. It's a matter of playing the game straight; of saving a little of the wild life for next year; and saving a little of it against the time when Little Bill gets old enough to go out into the woods with his dad and learn something about the creatures that struggle along out there.

Bill likes to hunt, and he likes to bring home his deer. There's nothing foolish or sentimental about him. But once I saw him lower his gun when a fine old buck, after making a great getaway, landed on a sheet of thin ice and went through. The buck was stuck right there in the cold wa-

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E. F. Brown, J. C. Kimberly, W. H. Scandling, A. Bjorkman, W. J. Cudlip, R. W. Pierce, Jr., R. C. Brownling, G. O. Fugere.

and the muck. Bill might have got him down at his leisure, or talked over and cut his throat.

But he didn't. He just lowered his tin, lighted his pipe, and watched the rock struggle for five full minutes. Finally the old forest monarch got his foot on a log or something, and came out with a great splash. He seemed little dazed and stood, sort of trembling, for thirty seconds more. Then he made a leap for drier footing and darted into the woods. All Bill said as:

"Go it it, old man—an' I hope nobody else gets you."

Hunting's a fine thing. It does a lot of things to a man's character. There's nothing about real hunting to rouse the instincts of murder and slaughter. When real men begin to understand the woods, and the fine things that live there, they lose the desire to kill.

The best hunters I have met are a lot like Bill. They let an awful lot of chances go by. They do much of their hunting with their eyes, and their ears, and a little of it with their nose. They see things and hear things, and smell things. They come back with a trophy—a head, or a few pelts, or some rabbits or ducks—but they come back with a lot more mental pictures. These pictures they're likely to bring out when they're all alone before a fireplace back in town. Their hunt breads over the whole year—in season and out. They live, again, a lot of the moments they lived in the woods.

It's to that kind of men Bill and I want to appeal in these outdoor pages. I say "Bill and I," because I can't think of the out-of-doors without Bill. We want to encourage the right kind of hunting and fishing and we want everybody to get a fair share of same. But we also want the game to stay a fair chance, and we don't want our forests overrun with murderers, or pot hunters, nor game hogs.

We believe that every game law could be strictly observed—not because there's a game warden around, or because it would cost \$25 or \$50 to break the law, but simply because our game today needs all the protection it can get.

So if we want to preserve the fine influence of a natural outdoors for our children, we've got to go slow.

Feeding for Winter Eggs

(Continued from page 27)

3. Six parts of corn or hominy meal, 4 parts ground oats, 4 parts wheat middlings, 4 parts bran, 7 parts beef scraps. Suitable when succulents are applied in slight excess.

4. Six parts of corn or hominy meal, 4 parts ground oats, 4 parts wheat middlings, 2 parts bran, 2 parts alfalfa meal, beef scraps fed in separate hopper and constant supply. Particularly well suited to light and active breeds. Hominy meal at present time is 20 per cent cheaper than corn meal and the proportion of beef scraps in the above mash will permit the substitution of hominy for corn meal.

When alfalfa or clover is grown on the farm, it may be omitted from the mash and an equal amount of wheat bran substituted. A fresh supply of alfalfa or clover may be placed each day in an old berry crate and the fowls allowed to consume the leaves.

An addition of three per cent of one meal is beneficial.

One-half to one percent of fine table salt should be added to all mashes and the mash thoroughly mixed.

Green Feeds may consist of cabbage, mangels, rutabagas, alfalfa or clover fed in racks, and sprouted grains.

Supply Fresh, Clean Water and Keep from Freezing.

General Rules for Mash Feeding. If the hens eat too much, reduce the amount of cornmeal or close hopper part of the time; if the fowls are getting too fat pursue the same policy; if they eat too little mash, increase the amount of cornmeal and feed less grain in the morning and at noon. Milk by-products, skim-milk, sour or butter-milk, are partial substitutes for



be done quickly and efficiently. Decide now to have a

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AUTOMATIC
TRADE MARK

Electric Light and Power Plant

THERE'S one made for *your* farm, whatever your needs may be—and it's the only one that "runs itself," *starting and stopping automatically, preventing any battery abuse*, and requiring no attention, except for water, oil and gas. Made in 15-50-100-250-500 and 750 lamp sizes — at

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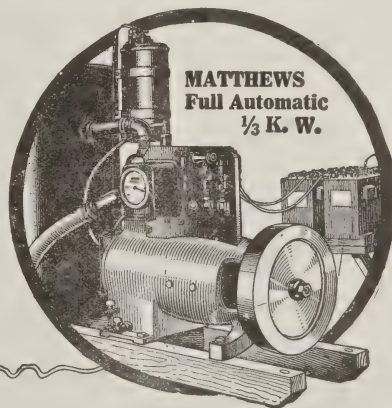
DEALERS:—Farm lighting and power is the coming Big Business. Get into it *now* with the **MATTHEWS**, the only full automatic plant. Write at once for our dealer sales co-operation plan, and available territory.

Murphy Supply Co.

Green Bay, Wis.

QUALITY AND SERVICE

MATTHEWS Exclusive Full Automatic Features Prevent over-charging or under-charging of Batteries.



beef scraps. When these are given liberally, reduce the proportion of beef scraps in the dry mash to 10 per cent. Mashes are absolutely essential for highest production.

Wet Mashes have been largely supplanted by dry. There is economy in wet mashes if skillfully fed, and suitable wastes are available. Table wastes and unsalable vegetables, if cooked, may form a considerable proportion of mashes.

Tractor Display

The J. I. Case Threshing Machine Company has arranged for an exceptionally fine exhibit of tractors and other power farming equipment at the Minneapolis Tractor Show, January 31 to February 7. The company has contracted for a large space in the Overland building for the purpose of making the exhibit the most practical and educational demonstration of power farm machinery it has ever planned for an exhibition of this kind.

DOCK COAL

CENTRAL WEST COAL CO.

MENOMINEE, MICHIGAN

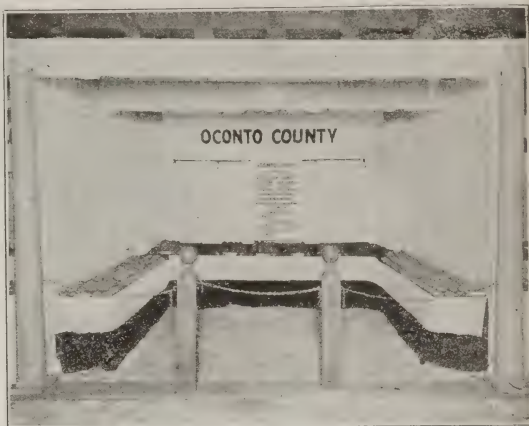
ORDER Drain Tile NOW

For Winter Delivery

We Have All Sizes

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MEMBER GREEN BAY ASSOCIATION OF COMMERCE



Oconto County Wins the Wisconsin Potato Prize

By ROBERT AMUNDSON

County Agricultural Agent, Oconto County, Wisconsin

OCONTO COUNTY, Wisconsin, suddenly sprung into prominence as a "potato county" by capturing first prize at the Wisconsin Potato Exhibition at Milwaukee, December 10, 11 and 12. According to the judges, the prize was awarded on "the uniformity of size and shape, superior quality and color."

Besides the excellent quality of potatoes a feature of the exhibit was the fact that it represented the first effort of the kind on the part of Robert

Amundson, county agricultural agent. Last year Oconto County had no agricultural agent and landed in the "cellar." The showing this year proves what a county agent can do. Mr. Amundson places the cost of the exhibit at "\$1.75 plus a lot of work."

Competition for first place was very close, there being only 2.3 points difference between the first five competitors. Following is the standing of the seventeen counties, all from Northern Wisconsin.

(Continued on page 57)

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Green Bay, Wisconsin

A DEPENDABLE RANGE

is the goal of every stockman. With a dependable range he feels sure of success and secure against future adversity. A tract of select, cut-over land in Cloverland offers stockmen this opportunity.

Tracts to Suit Needs

We have several choice ranges among our holdings which we will sell to practical stockmen on terms that will be to his advantage.

CONSOLIDATED LUMBER CO.

MANISTIQUE, MICHIGAN

"In the Heart of Cloverland"

The 1919 Farm Crops the Most Valuable in the Nation's History

THE farmers of the United States this year produced the most valuable crops in the history of the nation. The final report of the Department of Agriculture sets the value at \$14,092,740.00, compared with \$12,600,326,000, the revised figures of 1918, an increase of \$1,942,214,000, based on prices to producers December 1st.

The five leading grains—wheat, corn, oats, rye and barley, aggregated 1,350,344,000 bushels, an increase of 1,541,000 bushels over last year. The value of these grains was \$7,177,69,000, compared with \$6,761,366,000, an increase of \$415,803,000. The acreage in these principal grains was 59,124,173, compared with 56,407,162, an increase of 2,600,000 acres.

While the corn crop is the fourth largest on record its valuation looms up above all others and is next to the most valuable known, being worth \$3,934,234,000, or \$415,000,000 more than last year. The crop was 2,917,500 bushels, an increase of 7,000,000 bushels over previous estimates, and an increase of 434,000,000 over last year.

The wheat yield was the second largest known, 940,987,000 bushels, a gain of 23,000,000 over former returns and of 33,887,000 bushels compared with last year. The value is placed at \$1,542,452,000, compared with \$921,438,000 last year.

The oats yield was 1,249,310,000 bushels, 28,000,000 bushels more than previously reported, but the shortest in recent years, and a loss of 290,000,000 from last year.

Barley was smaller than hoped for, 65,719,000 bushels, a loss of 90,600,000 bushels from last year.

While potatoes turned out better than early estimates the yield was 57,901,000 bushels, or 43,600,000 bushels short of last year.

There was a slight loss in beet sugar production, the yield being 1,527,696,000 pounds, compared with 1,530,126,000 pounds last year.

Hay is a record crop of 108,666,000 tons, or 17,500,000 tons in excess of last year. There is all the feed the country requires and a good surplus left for export.

Although there have been no record-breaking yields of farm crops, except in hay, the aggregate value sets a new mark, which is highly satisfactory in view of the general advance in the prices of about everything.

Farmers Planning Potato Growers' Exchange

Farmers of Northern Wisconsin and Northeastern Minnesota in the vicinity of Duluth are planning a Potato Growers' Exchange, with headquarters in Duluth, to market their potatoes. It is expected that the organization will be definitely launched and a program formulated during the week of the annual Farmers' and Homesteaders' convention at St. Paul in January.

Spencer Cleland of the University farm at St. Paul is one of the original sponsors of the plan. It is proposed to establish a local potato exchange in each community with 100 to 200 farmers as members. When the annual potato crop is harvested the local exchanges will communicate with the headquarters exchange at Duluth, giving them the number of carloads of potatoes ready for shipment. The function of the Duluth office will be to keep in touch with the nation's potato market, advising the local organizations where shipments can be made with the most profitable result.

Speaking of Banks and Banking

Capital and Surplus \$600,000

A BANK "AD" means nothing unless there is behind it a REAL SERVICE that will help to build up YOUR business. The splendid growth of THE MCCARTNEY NATIONAL BANK may be attributed to the fact that because of its service the business of its customers is made to grow. No bank can grow and prosper unless its customers grow. So our first aim is to help our customers along the road to prosperity. Once a customer of this bank you become a member of the BANK FAMILY with its co-operation and sympathy in all your undertakings that are of a legitimate character.

Come and see or write us.

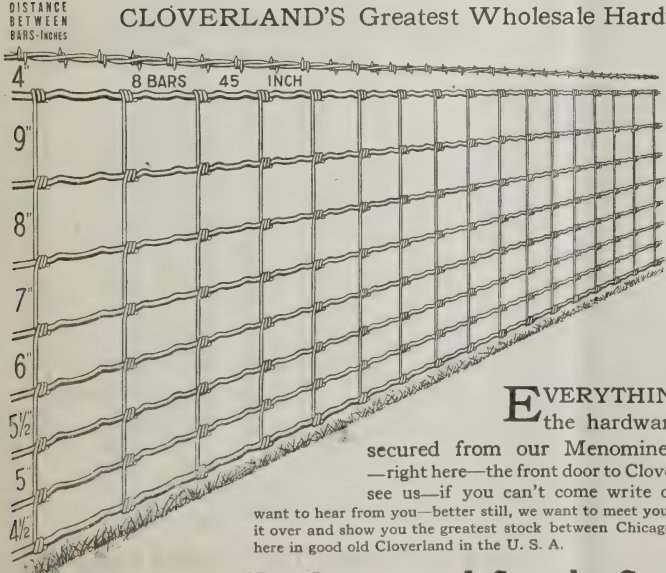
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purchasing power to help you secure the most reasonable price and the quickest delivery on your requirements for—

Sheep and Cattle Fencing,
"Certainteed" and "Pioneer"
Roofings,
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EVERYTHING you need in the hardware line can be secured from our Menominee warehouse—right here—the front door to Cloverland. Come and see us—if you can't come write or telephone. We want to hear from you—better still, we want to meet you face to face and talk it over and show you the greatest stock between Chicago and Duluth—right here in good old Cloverland in the U. S. A.

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and Economy of the

PRIVATE PUMPING SYSTEM

will be felt in every part of the farm or home

*Write us about your
Fresh Water Needs*

HARTMAN-BODILLY-SUESS CO.

McCARTNEY NATIONAL BANK BLDG.

GREEN BAY, WIS.

Sheep Growing in Northern Minnesota

(Continued from page 24)

Millet is good feed if cut when the heads are turning yellow.

When it is decided which is the better, the Holstein or the Guernsey, the Duroc-Jersey or the Poland-China, the Leghorn or the Plymouth Rock, I presume it may also be decided which is better for Northern Minnesota, March or May lambs. Personally, I prefer to have the lambs come about May 15th, as the weather is favorable, the green pasture gives the mothers a good supply of milk and the ewes have had plenty of exercise at lambing time, and mother their lambs well.

These are a few rambling remarks on a big subject. I should like to urge, however, that every farmer in Northern Minnesota call to his aid a little band of sheep. They will help him make and build up his farm. And in this age when every hamlet, village and city has its commercial club, let me also suggest that no better work can be done by such an organization than to carry out some plan for distributing sheep among the neighboring farmers, and, if necessary, financing the new beginners. Let every commercial club have its committee on sheep. It pays.

Proper Way to Plant Potatoes

An acre of potatoes requires eight to nine bushels of seed, ordinarily worth \$3 to \$5 per bushel, or, say, \$30 per acre. An acre of corn ground requires one-eighth bushel of seed corn, of a value not to exceed \$1.00. Under these circumstances, why should not a potato raiser be just as particular in planting seed potatoes requiring \$30 worth of seed per acre as he would in planting corn requiring \$1.00 worth of seed per acre?

Every care possible is taken to plant seed corn accurately, the ears being suited and tipped and the seed graded and the most accurate working planters possible secured to do the dropping. No mechanical device has been perfected to drop entirely accurate the various sizes of pieces used for potato seed; consequently, the only sure way of planting potato seed accurately is by hand.

Further, the average self-drop potato planter with the construction now in use more or less mashes the seed, frequently destroying the "eye" or the seed germ, and by taking out of the seed in this process a consid-

erable amount of the juice which is necessary to germinate the sprout, the seed fails to grow. This frequently results in the waste of seed as well as full returns from the ground planted. If the seed does sprout and come up, its vitality is lessened by the loss of this juice, and the sprouts are weak and do not thrive properly.

Properly covering the seed is also an important matter that has not been given the attention it merits. After the seed is placed in the ground, the soil should be rolled over the piece so that the moisture is retained in the earth until the seed has an opportunity to properly sprout and come up in a vigorous manner. When the soil is left loosely over the seed the air circulates through it and if the weather is unusually dry after planting the seed often lies in the ground and rots for lack of moisture. A practical corn raiser could not be given a corn planter which did not roll the ground over the seed, and why should a potato planter use a machine which does not embody this desirable feature.

Portable Saw Mills

- pay the cost of land clearing
- provide lumber for every farm use
- pay for themselves in service rendered to you and your neighbors.

WRITE TO

CARL HARTMAN SALES CO.

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235,000 Acres of Cut-Over Lands

We own and offer on exceptionally favorable and easy terms 150,000 acres in Delta, Schoolcraft and Alger Counties, Cloverland, Michigan.

Also 85,000 acres in the clover districts of Northern Wisconsin.
Tracts of all sizes. Terms to suit.

Bay de Noquet Co.

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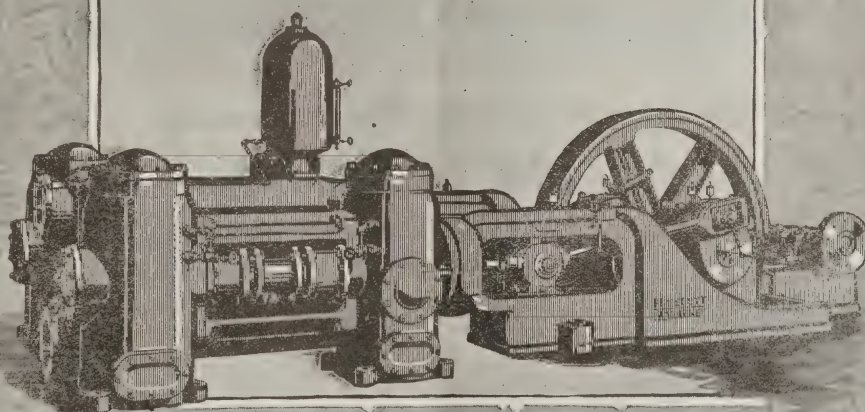
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IN Schumacher Feed and Big "Q" Dairy Ration we have supplied dairymen with the most simple, easy to feed ration possible to compound. One that not only produces exceptional results in the pail, maintains the best physical condition of their cows, but also saves a lot of time and labor and eliminates the guess-work incident to mixing their own ration. With

SCHUMACHER FEED AND BIG "Q" DAIRY RATION

fed in combination you can easily and quickly proportion the amount of protein and carbohydrate content to suit the individual requirements of every cow.

This combination has unusual palatability, high digestibility, nutrition, wide variety and proper bulk. It makes feeding easy, economical and accurate. Simply mix these feeds in proportions to meet the individual needs of each cow and your dairy feeding problems are solved. For more energy and vitality, feed more Schumacher Feed, the carbohydrate ration, at the same time giving each cow all the Big "Q" (protein) that she will respond to. This method results in maximum production over long periods of time and improves to a wonderful degree the general health of your herd.

The Quaker Oats Company Address **Chicago, U.S.A.**

Cattle and Sheep Ranging in the Great Lakes Basin—An Editorial

(Continued from page 13)

really qualified men who know the country but who are disinterested. The best of these perhaps are the live stock experts in the colleges of agriculture of the three states. The commercial organization in the various large cities will be helpful.

The Cloverland Magazine will give every possible aid. It has studied the soil surveys, and knows land. It will be glad to suggest districts (not specific tracts) where grazing will succeed. It will be glad to go over maps and other data with any prospective grazer, farmer, or settler. It will tell him specifically about the various districts and how he can reach and examine them. It will, when possible, assign a member of its staff to accompany the newcomer, and it will offer every other aid within its power. It has knowledge of land ownership and is in close touch with banking institutions ready to handle live stock accounts provided these accounts are based upon sound management. It can suggest cities, towns, and villages where the right business, educational and home facilities prevail.

The magazine calls attention to the excellence of the grazing tracts in the clover belt states. Drought is unknown; vegetation is luxuriant; climatic conditions are right and there is no general obstacle to success in the way of the live stock grazer. The bitter experiences, during both summer and winter, which some western states have contended with never prevail in Cloverland.

On the other hand, the Magazine wants western men to understand that their success and happiness in the Great Lakes Basin will depend upon the soundness of their efforts. Properly located, properly planned and properly operated, the cattle or sheep ranch of Cloverland will be a profitable investment. Improperly located, incorrectly operated, and mismanaged, it can eat up a fortune, just as any other business will do with the wrong start and the wrong kind of guidance.

Converting Fleece into Wool You Wear

(Continued from page 9)

tised goods, and those made by concerns who have a reputation to maintain and who identify their goods by their own brand or trade mark, and are therefore responsible for the service rendered by that piece of goods and can be held to an accountability should it not prove its worth.

The amount of wool consumed during the war by the various nations was an inconceivably large amount as, next to food and ammunition, the fighting forces must have clothing and the conditions under which the war was waged required warm clothing and of the best in character.

We hear of the various things that helped to win the war, and I believe that among the first that should be included in the list is wool, for a poorly clad, cold, shivering army in the trenches would rapidly lose its morale and fighting force. There was no better equipped army in the world than our fighting forces, and the credit for it is due to those who made the garments, as well as to those who made the cloth, and last, and by no means least, to those who grew the wool and tended the flocks, and I therefore think that the grower and sheep breeder of the West and Northwest can proudly and truthfully say, "I helped win the war."

Among these I am proud to say I can enumerate twenty-five boys who are members of the Patrick-Duluth Boys' Sheep Club. Impelled by patriotic motives, primarily, they agreed to take care of four sheep and do their part toward increasing the wool supply. I am happy to report that these boys have, with no exception whatever, made a great success of their work. Starting two years ago in January with a flock of 100 sheep, four each to the twenty-five boys, this flock has increased in two lambing seasons to 350 sheep. One boy starting out with but four ewes two years ago has now the equivalent of a flock of twenty-one sheep. He has actually nineteen living, has sold two.

These boys through the sale of their wool have paid for about one-half of the cost of their sheep and their flocks today represent their original investment, plus 250 per cent.

I believe what these boys have done scattered over homesteads and small farms adjacent to Duluth, can be done by every farmer and homesteader in Northern Minnesota, and I look forward to the time when Minnesota will be listed among the states as one of the greatest wool producing sections.

Popular Potato Planter at a Popular Price

The Keystone Hand-Drop Planter

Reliable—well made and finished. **Does** splendid work—simple—moderate priced. Will plant from four to five acres per day. **Price** within reach of farmers who plant but a few acres and could not afford a more expensive machine.

Opens the furrow to the proper

depth, drops the potatoes, covers them uniformly. The open faced adjustable wheel that follows the runner presses the earth in just the proper manner to hold the moisture and insure best results in sprouting. **Depth** of planting perfectly regulated. **Easy** to operate, no complicated mechanism to get out of order.

It Does Not Bruise the Potatoes and you can be sure every piece containing an "eye" will sprout. No waste of expensive seed or high priced land with this machine. **Its work** always pleases the user. **Secure catalog** for complete description and testimonials.

A. J. PLATT, Mfg. :: STERLING, ILL.





The southward flow—of agricultural and industrial production from all the vast territory in Upper Michigan and Wisconsin—*to the great world markets*

follows a natural course toward the shores and lakes and into

GREEN BAY

The Gateway to Cloverland



A World Port—

for live stock and agricultural products, with an unexcelled harbor and superior rail facilities.

A Financial Mart—

for the stockman, dairyman, farmer, manufacturer or merchant—its banks understanding and able to meet every legitimate need.

A Stock Buying Market—

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*Stockmen, Farmers and Business Men
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GREEN BAY ASSOCIATION of COMMERCE

GREEN BAY, WISCONSIN



USE THE BANKS

YOUR local banks are interested in your business welfare. They are institutions which deal in service. The more you use them the more good they can do and the more you will be benefited.

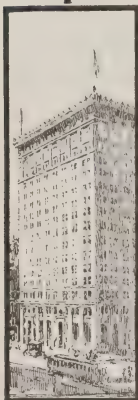
The banks of the United States now have 35,000,000 depositors and the number is rapidly increasing. These figures show the importance of the banks in our economic system.

The banks are ready to assist you in the development of your business plans. Learn about their many services and use them.

First Wisconsin National Bank MILWAUKEE

Capital and Surplus
\$8,000,000

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Assembled Acreages in

WISCONSIN

Are Now Ready for the Western Grazer or
the Corn Belt Live Stock Farmer

RANCHES OF ANY SIZE

360,000 acres of the best grassed and clover-covered cut-over lands, all watered by streams and lakes, have been assembled in Northern Wisconsin, and will be apportioned out in solid blocks to suit the stockman.

Get your location before the Spring rush is on

Write to the

Milwaukee Association of Commerce

Athletic Club Building, MILWAUKEE, WISCONSIN

An Editorial Talk With Our Readers

(Continued from page 5)

Men may teach revolution. They may start "movements." They may preach discontent. They may arouse class hatred. The wolves among them may try to climb trees and the squirrels hunt game. It can't be done. It gets them nowhere. It only blocks progress, breeds hatred and strife and in the end, leads them right back to where they started—squarely up against plain, honest work.

The spirit of the North Country doesn't ask whether the other fellow is getting along on an easier basis. As a matter of fact he probably isn't. There's the story about the middle-aged farmer. He got along pretty well but he figured that he was working harder than the city man. So he called on a big manufacturer. He found him seated at a big mahogany desk, dreaming about a farm. "Nice, easy job you've got," said the farmer.

"Wish I could trade it for a farm," said the manufacturer.

They traded.

Next day the manufacturer began farming. Grasshoppers got into his garden. His grain lodged. The flies were bad. The cows were restless. The hired man quit. The tractor wouldn't run and the horses balked. All in all he had a bad time of it.

The farmer was, meanwhile, running the factory. His men struck. Prices dropped. The bank called a loan. His stenographers were lazy. The telephone drove him frantic. The rush and haste and excitement nearly killed him.

One day, in despair, he drove out to the old farm. He found the manufacturer fussing with a broken mower.

"How's farming?" he said.

"Rotten. How's manufacturing?"

"Rotten!"

"Let's trade back."

And they did. It was a plain case of the squirrel hunting game and the wolf climbing a tree. It can't be done. Men aren't alike. They're not all fitted for the same job. Some are farmers, others manufacturers. Some are mechanics, others artists. Some are merchants, others seamen. A few are leaders. After they have been proven it, it is good to follow them. Real leaders give more than they take.

As for false prophets—the world seems full of them. More crack-brained fads and political what-nots have been evolved in the past few years than in a considerable previous period of world history. The Cloverland Magazine is an agricultural publication. It has no political hobby to exploit. But, for the sake of contented family lives; for the sake of progress and prosperity and peace—it wishes that the whole work-blocking pack might be sunk in the North Country lake, by North Country farmers. That, we think, would be a real, agricultural achievement.

So the Cloverland Magazine wants to work hard. It hopes, in the coming year, to reach most of the farms in the north-temperate zone. It hopes to gather the soundest, most practical and most readable agricultural information. It hopes to serve the stockman, the dairyman, the fruit

grower, the poultryman, the general farmer and the country merchant.

It believes that the farm woman is a mighty factor in the life of the nation. It will try to interest her.

It believes that, being published in the greatest sporting and game country in the world, it should give some attention to the sportsman and the out-of-doors.

It will continue its efforts with sheep and cattle grazers.

A year ago the Magazine sent men into the West. They told the story of a great, unused cut-over range where grasses grew. Trains began to come. Livestock was unloaded in the clover fields. The cut-over lands fed sheep flocks.

The Magazine expended money and effort to accomplish this. Big, far-seeing men and women—the great development bureaus and commerce associations—made it possible.

Most of this western livestock thrived. Early sales netted good profits. Late sales, on a broken market, showed losses. The country had nothing to do with that.

So, during the coming year, the Magazine will again send men into the west. They will again tell the story of the clover fields. They will again advise care and caution. They will urge that the right range be chosen. And, when we look back next year, we may see failures here and there; we may find men who made mistakes; but we will again find a big percentage of success. If the market is right we will find big profits. If it isn't we won't. That's all in the game.

The Magazine recognizes agriculture as the fundamental industry. Every other activity depends upon it. Men and women cannot live without it. Cities cannot prevail unless agriculture gives them sustenance. Upon a sound, practical agriculture is the future of mankind dependent.

However, agriculture is made easier, more attractive and more efficient if it maintains cities. The reaper and binder are city products. The comforts in our homes are city made. Our automobiles come from city shops and the clothing we wear is fashioned in the city's mills.

We need cities. We want them to go clean, be fair, deserve trust, and join us in mutual helpfulness. From them, too, we expect plain, old-fashioned WORK. We are tired of strikes, tired of fuel shortages; tired of railway tie-ups. We want production.

The Magazine believes that the Cloverland belt is undergoing growth, a prosperity and a development undreamed of a few years ago. It is attracting western cattle and sheep in ever greater numbers. It is attracting farmers from the east and south. Industries are springing up in its every village and city. This prosperity means individual happiness. It means that Cloverland has taken its place with older sections that it is a worthy part of the richest agricultural zone in the world.

We may go on in the knowledge that we will go straight. We are no ashamed of what we have done. But we know that we shall build in an even bigger, better, more generous and sounder way, as we enter this the New Year.

AMERICAN EXCHANGE NATIONAL BANK OF DULUTH, MINNESOTA

Checking Accounts

Foreign Exchange

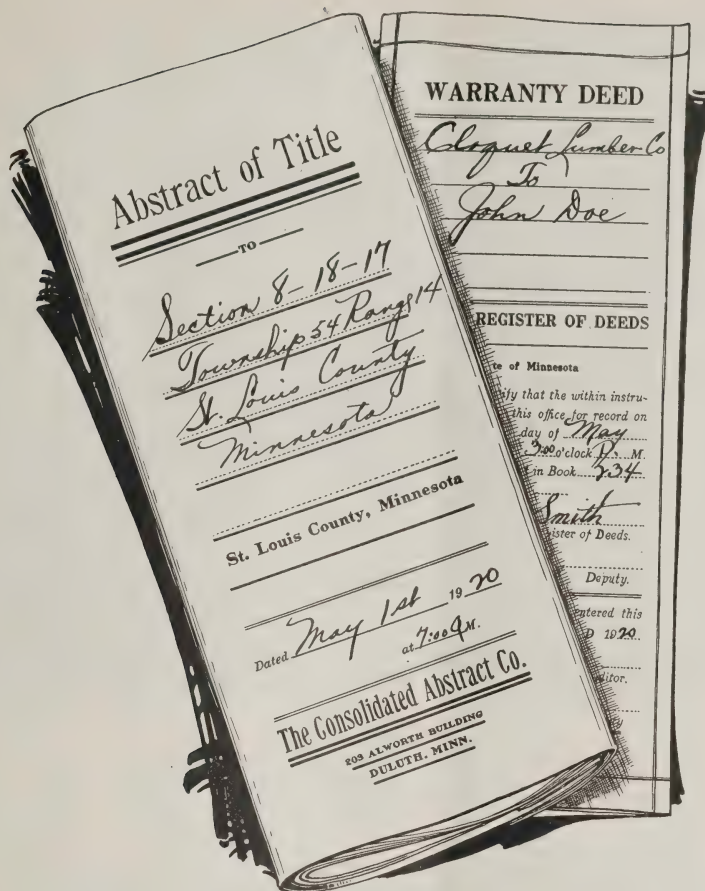
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Total Resources, September 12th, 1919 Over \$20,000,000.00



Northern Minnesota

can insure the future of your business

Title to a block of our lands suitable for grazing can be had on long-time easy payments.

Are you depending on leased lands?
Why? Is it satisfactory?

Write Us Today About These Lands

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CLOQUET, MINNESOTA

"Eat More Lamb and Mutton" Campaign a Success in Duluth

THE PROOF of the pudding is the eating. That's about the way the Cloverland Committee of the Duluth Commercial Club figured it when they named November 14th and 15th "Greater Cloverland Lamb and Mutton Days."

The members of the committee know that Northern Minnesota lamb and mutton is as fine as can be produced, for they had been thinking, seeing, dreaming and eating lamb and mutton since last February, but like the wise old owl who discovered the oasis in the great desert created July 1st, 1919, according to the historian, they wanted to pass the good word along.

They wanted all the people of Northern Minnesota to know about "Cloverland Honeyed Mutton" and just how good it really is. Therefore it was planned that for a solid week a publicity campaign would be conducted previous to the red letter days. That from every angle the lesson of "eat more lamb and mutton" would be driven home to the housewife so hard that out of pure curiosity, if for no other reason, everyone would be eating "Honeyed Lamb" on the fourteenth and fifteenth of November. Did they eat more lamb, you ask? They did. About five times as much.

They are good fellows, these men on the Greater Cloverland Committee, and every western grazer that brought his sheep to Minnesota this past grazing season, will emphatically tell you so. Yet it was not charity alone that prompted their actions. A more serious purpose was aimed at; the establishment of an industry is one thing but the benefits to be derived by consuming the product of that industry right at home, is even more to be desired. You get it both ways, both going and coming. Creating a greater home market for Minnesota's Newest Industry was the mark for which the committee aimed.

And that's about the way the people of Duluth and Northern Minnesota do things. You can bet your last Canadian dime that the job is thoroughly done. Going West and bringing home to graze on the fertile pastures of America's last frontier of opportunity, Northern Minnesota, a half million dollars' worth of sheep was only half the job. The job was not complete until the annual turn-off of these forty-five thousand western sheep found their way into the homes of the citizens of that same section.

Northern Minnesota wants more grazers, a lot more sheep and cattle men, and if a greater home market for his live stuff among the small farmers and his dressed meats to the townspeople will help to encourage more ranchers to come and take up

By I. W. LEE, Ass't Secretary of Duluth Commercial Club



A truck load of "Honeyed Lamb" ready for delivery to retail markets during the "Eat More Lamb and Mutton" campaign in Duluth.

homes and ranches here, the Duluth Commercial Club will bring it about.

For the Western readers of Cloverland the results of lamb and mutton days have a special significance. It unquestionably, by action and by word, confirms the faith of the citizens of Northern Minnesota in the adaptability of the lands for grazing purposes, and evidences a wholehearted ambition to assist the permanent establishment of the grazing industry.

Since February last the Cloverland Magazine has faithfully carried the message of Northern Minnesota to the grazer. No attempt has been made to cover up or to describe conditions in false colors. It is unnecessary. Greater Cloverland is truly a land of clover and grasses. Everywhere where clover seed has dropped it springs up ten fold. In fact, in Cloverland clover grows like a weed.

However, to get back to our story. For the benefits of those who may be interested in learning just how the campaign of "Greater Cloverland Lamb and Mutton Days" was carried on, I would set down the main factors contributing to the success of the movement.

First of all, complete co-operation of the daily newspapers was secured.

They agreed to carry as feature stories for the entire week and the material as outlined several days before the campaign for each day. And without hesitancy let it be understood that without the fullest measure of newspaper co-operation such a campaign will lack its punch.

The matter was then presented to the wholesale and retail meat dealers, and quite naturally, was happily received and full co-operation secured. In addition desirable down-town show window space was secured from public spirited merchants.

In the main the above-named agencies constituted the carriers of the message. Great possibilities exist in the advantageous use of these agencies. The longer one thinks about it the greater in number become the ideas that might be employed. But this is what actually transpired.

Starting with Sunday, November the ninth, the Duluth News-Tribune carried a sheep picture with a story setting forth the reasons for the campaign, following it on Tuesday with a picture of a clover field, accompanied by an explanation of the slogan "Honeyed Lamb." On the remaining days of the week pictures of western sheep that were fattened in Northern Minnesota this past season, loading

out for market to make "Honeyed Lamb," a picture of a ewe with her twin lambs, and a clip of wool, and a picture showing a section of the eight hundred Cloverland lambs in Swift & Co.'s cooler were interestingly shown, accompanied by constructive feature stories.

In the Duluth Herald each day of the week, interesting stories were carried, using in connection a picture of a lamb on a cutting block so marked as to show the various cuts of lamb, and a picture of a truck-load piled high with dressed lamb enroute to the meat shops. In addition the Herald on the opening day November 14th, contributed its local daily cartoon in support of the work.

Both newspapers supported the campaign editorially in a splendid manner. The whole efforts of the newspapers were concentrated on emphasizing November 14th and 15th as "Greater Cloverland Lamb and Mutton Days," celebrating the close of the first season of the western campaign which resulted so satisfactorily.

Through the wholesale meat dealers special paid advertising in the newspapers was inspired and in the regular advertising of the retailers Cloverland lamb was featured as the big card of the days.

Beyond question one of the most interesting events occasioned by the campaign was the lamb displayed by Swift & Company, at their Duluth branch. The local manager made a special trip to the packing house and personally selected his entire stock of eighteen hundred head to be offered for sale on those two days. The job was well done. Each lamb was a perfect specimen.

A feature that attracted the attention of the younger folks was the show window arranged by the Columbia Clothing Company, that had as its main attraction a young lamb. Of all the sheep shipped into Minnesota this year this lamb perhaps has the most interesting story. Mary, for that is her name now, was born on board the train and became separated from her mother when unloaded. Mary was indeed a sorry sight, an apt subject for adoption and that is exactly what happened. Mr. Thomas Owens of Two Harbors, took Mary home with him that evening and from that day on Mary prospered and grew fat under the affectionate care bestowed upon her by Mr. Owens' two grandchildren. Mary has found the folks of Greater Cloverland very kind to the western sheep.

And that is about how November 14th and 15th came to be known to every housewife and in every home as "Greater Cloverland Lamb and Mutton Days."



Swift and Company's display of 1,600 prime lambs in the "Eat More Lamb and Mutton" campaign. A purple ribbon with "Cloverland Lamb" in gold letters and a neat purchase tag, giving the name of the purchaser, were attached to each. The decorations were the national colors and winter smilax. Two demonstrators were present, explaining the retail cuts of lamb and how they were made.



SERVICE!

When you come to Minnesota

IN the picture above are two employes and one member of the Cloverland Committee of the Duluth Commercial Club. This sheep train has just arrived at the point of unloading from Wyoming. These men are there to see that this rancher gets the proper start on his new range. That is service.

Your letters of inquiry will receive a definite and thorough answer.

Upon your arrival in Northern Minnesota we take you out and show you the country.

WHEN your sheep or cattle are shipped in you will find the orders you left for fencing, building of unloading shuts, etc., efficiently carried out.

When your train arrives this same service provides you a man that stays with you until you get properly located.

And while you are getting acquainted in the new country the Commercial Club is your service station.

We believe in our lands and rendering service is our business.

COMMERCIAL CLUB *of* DULUTH

DULUTH, MINNESOTA

WRITE US TODAY ABOUT GRAZING AND FARMING OPPORTUNITIES

WE are keenly interested in the development of the agricultural and grazing opportunities of Cloverland.

What helps any part of this Empire of the North helps it all.

Calumet & Hecla Mining Company

JAMES MacNAUGHTON

Vice-president and General Manager

CALUMET MICHIGAN

Rape and Clover Produce Top Lambs

T. P. OWENS of McLean County, Illinois, has a hobby, and this hobby is raising market-topping lambs.

In order to make his lambs bring the highest money on the day they arrive on the market Mr. Owens specializes in growing rape and clover mixed with his oats in the spring and rape alone in his cornfields just before the last plowing. At times it is a question with this farmer as to which he is the more enthusiastic about—the rape or the lambs. He likes to talk about both and thinks that lambs that are not on rape pasture are not on feed at all.

Mr. Owens shipped 210 lambs to the Chicago market December 9 and received the highest price paid that day by the packers—\$16.25. His lambs averaged eighty-two pounds and were taken without a sort. On Thursday of the previous week he had a four-car string that brought \$16.50. They went straight, as there wasn't a cull in the entire band. This sheepman topped the market several times last year. In fact this achievement has become regular with him in his fifteen years' experience in working with his hobby, the big fat lamb.

"Lambs are money makers if they are handled carefully," said Mr. Owens, after hearing the price he had received, "and the most careful method of handling them is to run them on a rape and clover pasture until the corn is out in the fall and then on a rape-corn stubble pasture until they are top-notchers and ready for the market."

"Very few feeders can put a band of lambs on a grain ration and feed them to advantage. Too often the lambs are allowed to founder themselves and then the feeder is certain to suffer a loss. I don't see the need of taking this risk, which, if it turns out well, is expensive, on account of high priced feed, when lambs equally as good as the best fed on a grain ration can be produced on rape and clover and rape and corn stubble. I have tried both ways and I gave up the grain fed lambs years ago—they don't pay."

Mr. Owens has 600 acres of land in the three farms that he owns. The most of this land he uses as a pasture for his lambs, dividing the fields into 40 acres tracts fenced sheep-tight. During the present year he fed out 700 lambs. Every year for the past fifteen years he has shipped from 500 to 1,000 lambs for the market.

When Owens plants his oats in the spring he uses a force feed drill with seeder attachment. In his seeder attachment box he places the rape and

clover seeds, generally making the mixture one-third rape and the other two-thirds clover seed. These seeds go into the ground with the oats. After the oats are harvested the rape and clover pasture come on fast, if the season is at all favorable, and make a fine pasture about Sept. 1.

Shortly before the corn on the Owens farm is ready for the last plowing some one goes through the field grinding a broadcast seeder and sowing about 2½ pounds of rape on every acre. When the cultivator shovels come along they cover the rape seed. In a short time the rape is growing into pasture for the lambs. After the corn is picked this pasture is usually just right and the lambs are switched from the rape-clover tract to the rape-corn stubble tract. The lambs pick up a little corn in the field, and this assists in balancing their ration.

Mr. Owens buys his feeding lambs on the market every year and is very careful about turning them on the rape and clover pasture before they are inured to their new feed. He makes a practice of turning them out an hour the first day and gradually increasing the feeding period until they remain in the pasture all day.

Pure Bred Stock Record

That the pure bred live stock record for Michigan, and probably for the entire United States, is held by Livingston County, is apparent from the results of a cattle census just completed in the county. A widespread movement to improve the breeding of dairy and beef cattle has been going on throughout the country during recent years, and the wonderful showing of Livingston County is held as a triumph for the live stock interests of the state.

Of the 424 bulls in service in the county only 2 per cent are rated as scrubs, 76 per cent being registered stock, and 22 per cent classifying as "grades." The census shows 321 herds of registered live stock, with a total of 3,668 animals, not including bull calves.

"Holsteins are the predominant breed in the county," says County Agricultural Agent F. S. Dunks, under whose supervision the census was taken. "There are 275 registered Holstein herds with 256 registered Holstein sires. Shorthorns rank next in the list, while there are seven other breeds that are represented by two or more pure bred bulls."

"Our scrub bull list has already been reduced to ten individuals, and we hope to eliminate these during the coming year. This will leave the county 100 per cent pure bred."

Other counties are rapidly approaching the standard set by Livingston, and it is believed that within a few years the entire state will be free from the production-lowering influence of poor breeding stock.

The returns from an extensive inquiry made about the middle of November indicate a somewhat smaller production of soy beans and cow peas than last year. Relatively few counties in the principal producing sections for each of these crops reported an acreage or a yield per acre equal to or greater than normal, or equal to or greater than 1918, according to the Bureau of Markets.

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Suitable for Grazing or General Agricultural Purposes

in Alger, Chippewa, Gogebic, Luce, Mackinac and Schoolcraft Counties

THE Northern Peninsula of Michigan is the best Live-stock and Dairy country in the United States, if not in the world. It can care for 8,000,000 sheep and 1,000,000 head of cattle.

For information write

LAND DEPARTMENT, Charcoal Iron Company of America
MARQUETTE, MICHIGAN



These Wyoming Sheep
Grazed Near Two Harbors, Minn.,

Brought Top Market Price

ROBERT A. CROSTHWAITE of Cody, Wyoming, shipped 4,100 sheep to a range near Two Harbors, Minnesota, the 6th of last July, and sent his first bunch to South St. Paul, where they brought top market, on September 15th.

Do You Know of a Better Record?

There are thousands of acres more in Lake County, Minnesota, and in the vicinity of Two Harbors, just as good as the range that gave Mr. Crosthwaite such a handsome profit for coming to Cloverland. These ranges of blue grass and clover await your flocks and herds.

Business
Men
of Two
Harbors,

Two Harbors,
Lake County,
Minnesota.

*Inspect Lake County cut-over land first,
and if satisfied, bring on your
sheep and cattle.*

WEALTH IN Cut-Over Lands

Lumbermen have almost eliminated the forests of Cloverland. The old plaint is that they robbed the land of its wealth. Experiments within the last few years have demonstrated how erroneous this opinion was—experiments have demonstrated that the lumbermen really paved the way for rapid development of the greatest livestock and dairy district in the world. The

Real Wealth of Upper Michigan

is in the vast acreage of

CLOVER-COVERED CUT-OVER LANDS

No better pastures may be found anywhere than on these thousands of acres that have been lying idle for many years. They offer opportunities unexcelled for livestock farming, which experience has shown farmers to be the most profitable method of farming. In Cloverland the settler and small farmer are guaranteed success with a band of sheep or herd of dairy cows on the farm. And while the sheep and cows gather handsome profits from among the stumps, they are clearing the land and adding to its fertility.

The Public Domain Commission of Michigan:

WILLIAM KELLY,
Chairman, Member Board of Control
College of Mines.

JUNIUS E. BEAL,
Board of Regents, University of
Michigan.

THOMAS E. JOHNSON
Superintendent of Public Instruction

COLEMAN C. VAUGHAN,
Secretary of State.

ORAMEL B. FULLER,
Auditor General.

WILLIAM H. WALLACE,
State Board of Agriculture.

GEORGE L. LUSK,
Secretary Commission and Commis-
sioner of Immigration.

Laughing Bill Hyde

(Continued from page 11)

get along, with proud people always spurning their gifts. He's got my nan. You take my tip, Kid, and cling to your coin. Salt it down for winter. That's what I'm doing with mine."

"Are you?" Ponatah was not amused she was gravely interested. "I thought you were broke, Billy."

"Where'd you get that at?" he demanded. "I've always got a pinch of change, I have. I'm lucky that way. Now then, you run along and don't never try to feint me into a clinch. It don't go."

Laughing Bill enjoyed a good rest in the days that followed. He rested hard for several weeks, and when he rested he lifted his hand to absolutely nothing. He was an expert idler, and with him indolence was but a form of suspended animation. In spite of himself, however, he was troubled by a problem; he was completely baffled by it, in fact, until, without warning and without conscious effort, the solution presented itself. Bill startled his cabin mate one day by the announcement that he intended to go prospecting.

"Nonsense!" said Thomas, when the first shock of surprise had passed. "This country has been run over, and every inch is staked."

"I bet I'll horn in somewhere. All I want is one claim where I got room to sling myself."

"If that's all you want I'll give you a claim. It has twenty acres. Is that room enough?"

"Plenty. Where is it?"

"It's on Eclipse Creek, I believe. A patient gave it to me for a bill."

"He won't call for a new deal if I strike it rich?"

"No. I paid his fare out of the country. But why waste your valuable time? Your time is valuable, I presume?"

"Sure! I ain't got much left. You don't believe in hunches, do you? Well, I do. I've seen 'em come out. Look at Denny Slevin, for instance! I heard him say he had a hunch something unpleasant was going to happen to him, and it did. We'll go fifty-fifty on this Eclipse Creek."

The doctor shrugged his shoulders. "Suit yourself. Fresh air won't hurt you."

The first frosts of autumn had arrived before Laughing Bill returned to town with the announcement that he had struck a prospect. Doctor Thomas was at first incredulous, then amazed; finally, when the true significance of those tiny yellow grains came home to him, his enthusiasm burst all bounds. He was for at once closing his office and joining actively in his partner's work, but Bill would not hear to such a thing.

"Stick to the pills and powders, Doc," he counseled. "You know that game and I know this. It's my strike and I don't want no amachoos butting in. I got options on the whole creek—she's eclipsed for fair—'cause I don't like neighbors. You shut your trap till spring and sit tight, then we'll roll our packs, stomp on the fire, and call the dog. Old Home Week for us."

"But, Billy, we can't work out that claim in one winter," protested the physician.

"How d'you know we can't? Mebbe it's just a pocket."

"We'll find other pockets. We have the whole creek—"

"Say, how much d'you need to satisfy you?" Bill inquired, curiously.

"I don't know. A hundred thousand dollars, perhaps."

"A hundred thousand! Whew! You got rich tastes! This ain't no bonanza."

"But if it's any good at all it will net us that much, probably more."

Bill considered briefly, then he announced: "All right, bo, I got your idea. When I hand you a hundred thousand iron men we quit—no questions, no regrets. Is that it? But you've hiked the limit on me; I dunno. I'll make good."

By the time snow flew the tent on Eclipse Creek had been replaced by a couple of warm shacks, provisions had been bought, and a crew hired. Work

commenced immediately, and it continued throughout the winter with Bill in charge. The gravel was lean-looking stuff, but it seemed to satisfy the manager, and whenever Thomas came out from town he received encouraging reports from his partner. Hyde ceased playing solitaire long enough to pan samples in his tub of snow water. Now had the younger man been an experienced placer miner he might have noted with suspicion that whenever Bill panned he chewed to bacco—a new habit he had acquired—and not infrequently he spat into the tub of muddy water. But Thomas was not experienced in the wiles and artifices of mine-salters, and the residue of yellow particles left in the pan was proof positive that the claim was making good. It did strike him as strange, however, that when he selected a pan of dirt and washed it unassisted he found nothing. At such times Bill explained glibly that no pay dump carried steady values, and that an inexperienced sampler was apt to get "skunked" under the best of circumstances. Concentrates lay in streaks and pockets, he declared. Then to prove his assertions Bill would help his partner pan, and inasmuch as he wore long finger-nails, underneath which colors of gold could be easily concealed, it was not surprising that he succeeded in finding a prospect where the doctor had failed. For fear Thomas should still entertain some lingering doubts, Bill occasionally sent him down into the shaft alone, to sample the pay streak, but in each instance he took pains to go down beforehand with a shot-gun and some shells of his own loading and to shoot a few rounds into the face of the thawed ground.

The winter passed quickly enough, Bill's only concern arising from the fact that his strike had become common knowledge, and that men were clamoring to buy or to lease a part of the creek. It was a tiny creek, and he had it safely tied up under his options, therefore he was in a position to refuse every offer. By so doing he gained the reputation of being a cautious, cagey man and difficult to deal with.

Bill paid off his crew out of the first spring clean-up, from the dust he had managed to dump in the sluices at night. Thereafter he sent the gold to town by Doctor Thomas, who came after it regularly. When he closed down the works, in June, he and his partner held bank deposit slips for a trifle over one hundred thousand dollars. Rumor placed their profits at much more.

Bill saw little of Ponatah after his return to Nome, for the girl avoided him, and when he did see her she assumed a peculiar reserve. Her year and a half of intimate association with cultured people had in reality worked an amazing improvement in her, and people no longer regarded her as an Indian, but referred to her now as "that Russian governess," nevertheless she could retreat behind a baffling air of stolidity—almost of sullenness—when she chose, and that was precisely the mask she wore for Bill. In reality she was far from stolid and anything but sullen.

For his part he made no effort to break down the girl's guard; he continued to treat her with his customary free good nature.

Notwithstanding the liberal margin of profit on his winter's operations, Bill realized that he was still shy approximately half of the sum which Doctor Thomas had set as satisfactory, and when the latter began planning to resume work on a larger scale in the fall, Mr. Hyde was stricken with panic. Fearing lest his own lack of enthusiasm in these plans and his indifference to all affairs even remotely concerning Eclipse Creek should awaken suspicion, he determined to sell out his own and his partner's interests in accordance with their original understanding. Without consulting Thomas he called upon Doctor Slayforth.

The pious mine-owner was glad to see him; his manner was not at all

that it had been when Bill worked or him. His words of greeting fairly tickled prune juice and honey.

"Say, Doc, I got a load on my chest! 'me, strayed lamb and you being a sort of shepherd I turns to you," Bill began.

"I trust you have not come in vain," the ex-missionary beamed benignly. It has been my duty and my privilege to comfort the afflicted. What troubles you, William?"

"There's a school of sharks in this illage, and I don't trust 'em. They're no slick for a feller like me."

"It is an ungodly place," the doctor greeted. "I have felt the call to work here, but my duties prevent. Of course labor in the Lord's vineyard as I pass through, but—I am weak."

"Me, too, and getting weaker daily," Bill summoned a hollow cough. "Listen to that hospital bark. I gotta blow his place, Doc, or they'll button me up in a rosewood overcoat. I gotta ell Eclipse Creek and beat it." Again he coughed.

"I am distressed. By why do you come here?"

"I aim to sell out to you."

"What is your price, William?"

"A hundred and fifty thousand, ash."

Slayforth lifted protesting palms. "My dear man—"

"That's cheaper'n good advice, and you know it. I took out 'most that much last winter with a scowegian ang of six. Here's the bank's O. K. but I ain't got use for a lot of money, Doc. I wouldn't know how to run a ineyard like you do. All I want is a nice little corner saloon or a cattle ranch."

"It is a large sum of money you ask. There is always an element of uncertainty about placer mining." Doctor Slayforth failed to conceal the gleam of avarice in his eyes.

"Doc, take it from me; there ain't a article of uncertainty about Eclipse Creek," Bill earnestly assured his earer. "If I told you what's there on wouldn't believe me. But Thomas, he's got a gal and I got a cough. They oth need attention, and he's the only uy that can give it. We're willing to and you Eclipse if you'll take it."

There was considerable conversation, and a visit to Eclipse Creek, but he doctor, it proved, was willing to take any good bargain, and a few days later the transfer was made. When the larger part of Slayforth's winter's lean-up had changed hands the two partners adjourned to Thomas's little office.

"Well!" The physician heaved a deep sigh of relief. "It's all over, and I feel as if I were dreaming."

"The Oregon sails tomorrow. It's time to stomp on the fire."

"I—I wonder if we were wise to sell ut at that price," the doctor mused, doubtfully.

"You lay a bet on it, bo. Something ells me that soul-saver will go bust on Eclipse Creek. I got a hunch that say." Mr. Hyde's seamy face wrinkled into a broad grin.

"Well, I've more faith in your unches than I used to have. You've een a good friend, Bill, and a square ne." The speaker choked, then rung his partner's hand. "I've cabled lice to meet us. I want you to know er and—I want her to see that I ured you, after all."

"Td admire to meet her, but my aste has allus run more to brunettes," aid Mr. Hyde. Then, since he aborred emotional display, he continued riskily: "Now call the dog. I'm off o buy our ducks."

Laughing Bill purchased three tickets instead of two, then he went in earch of Ponatah. It so chanced that e found her alone. Now neither he or any other man had ever called pon her, therefore she was dumounded at his coming.

"Well, Kid," he announced, "me 'n' he Doc have sold Eclipse Creek, and e bow out tomorrow on the big moke."

Ponatah opened her lips, but no ound issued. She possessed a strong ousy body, but the strength, the life, eemed suddenly to go out of it, leav- ing her old and spiritless.

"Got a kind word for us?" the man inquired with a twinkle.

"I'm glad you struck it rich," she murmured, dully. "You—you'll take care of yourself, Billy?"

"Who, me?" I don't s'pose so. I don't know how to take care of nothing." There was a moment of silence. "Like me?" he asked.

Ponatah turned away blindly, but as she did so Laughing Bill put his hand gently upon her shoulder, saying:

"Cheer up, Kid. You're going to join the troupe. I've come to get you."

There was amazement, incredulity, in the girl's face as she lifted it to his. "What do you—mean?" she quavered. "Are you goin to—marry me?"

"You guessed it!" he laughed. "I been aiming to put up that job on you for a long time, but I had a lot of deals on my hands. I was a sort of power-of-attorney for a coupla simps, and it kept me busy. If you think the two of us can do with three lungs, why we'll grab a psalm-shouter and—"

"Billy! Billy!" Ponatah clung to him fiercely, hungrily. "Oh, Billy—I'll make you well. We'll go to Arizona, Colorado, Montana—where it is high and dry—"

"I been to them places," he told her, dubiously, "and I 'most stopped breathing altogether."

"New Mexico, then. You won't be ashamed of me there."

"Say, Kid! I wouldn't be ashamed of a hare-lip and warts in New Mexico. But you got me wrong; I'm plumb proud of you, and just to prove it I aim to make you carry our bank-roll in your name. That's how she stands at the bank, and that's how she's goin' to stand. From time to time you can gimme a check for what you think I'm wuth. Now then, do with me as you will; grab your lid; we'll join hands and be soldered up."

Laughing Bill stared after the girl as she hurried away; musingly he said: "The little Doc got in on no pair, for it was all her coin, of course. But she'd 'a' had to split, fifty-fifty, with a lawyer, so it ain't a bad deal all around."

THE END.

Annual Farmers' Week

Special new exhibits on agricultural subjects and entertainment of a high order are among the things announced for the annual Farmers' Week at the Michigan Agricultural College, which is to be held this year from February 2 to 6.

Speakers of national reputation, including Dr. E. V. McCollum, of Johns Hopkins University; H. C. Taylor, Chief of Farm Management, Washington, D. C.; Dean Vivian, of Ohio State University, and many others will be heard.

Annual meetings of a large number of Michigan's leading agricultural organizations will be held at East Lansing at the same time. These include The Michigan Crop Improvement Association, Michigan Maple Syrup Growers, Michigan School Commissioners, Michigan Horticultural Society, Michigan Muck Farmers, Michigan Potato Producers Association, and others.

Farmers, housewives, rural workers, and others interested in the agriculture of the state are expected to attend the one week gathering in great numbers. Indications are that the attendance record of more than 5,000 for the annual meeting will be broken this year, according to the men at the agricultural college who are in charge of arrangements.

Michigan Leads in Cukes

More than 40 per cent of the cucumbers grown in the United States in 1919, were grown in Michigan, according to Verne H. Church, field agent of the Michigan co-operative crop reporting bureau. Michigan has 195 pickle plants and reports were received from 144 of them. The total acreage of the state was 13,740. The average yield was forty-three bushels to the acre and the total production was 805,820 bushels.

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D. S. DEAN, Treas., 87 Milk St., Boston, Mass.

Northern Crops Win at Mid-West Horticultural Show

A MAMMOTH 120-pound pumpkin grown in Shawano County, Wisconsin, won first prize against all comers at the Mid-West Horticultural Exposition at Des Moines, Iowa, in November. None of the spectators could remember of having seen so large a pumpkin exhibited at this show, and visitors from Indiana, Missouri, Kansas and other states which claim honors in pumpkin growing looked at the Northern Wisconsin product in amazement. The pumpkin was exhibited by Merton Moore, county agricultural agent for Shawano County.

Northern Wisconsin vegetables and root crops also outdistanced all other exhibits, claiming 50 per cent of all premiums, and Northern Wisconsin potatoes garnered 75 per cent of all premiums in the potato classes. A collection of vegetables grown by Joseph Ward of Eau Claire, defeated entries from Iowa's best market gardens for first place in the display of garden produce. Mr. Ward also won 60 per cent of the first premiums in individual classes of garden stuff. He also won first prize on the largest cabbage and first on sugar beets, in a race with Iowa, Illinois and Minnesota growers.

N. M. Blain of Rusk County, won sweepstakes prize on a sample of rutabagas, which the judges declared to be the first ever exhibited in the country. The perfection in color, size, uniformity and quality, were specially noted by the judges. The largest seed house in Iowa obtained the loan of one of these rutabagas to photograph for a cover for the next year's seed catalogue.

N. A. Rasmussen of Oshkosh, won six first premiums and three seconds on eleven entries of garden produce. In potato entries Vernon Atwood of Rusk County, won first prize on Green Mountains, and his neighbor, Doc



The Sweep-stakes Display of Rutabagas

Hemphill, took second on Burbanks; Ed Martenson of Vilas County, took first on Irish Cobblers, and Carl Hazelberg, second; C. G. Kuney of Oneida County, took first prize on Triumphs, and John Sendbeck of Vilas County, second. Vilas County won honors on Burbanks. J. F. Hauser of Bayfield County, won first on the best display of potatoes, and the Farmers' Potato

Association of Chippewa County won second in the same class.

Ed Kringle of Barron County, had a display of ten bushels field run of certified Rural New Yorkers that attracted much attention. The field run was 332 bushels to the acre.

J. W. Hicks, of the Wisconsin Certified Seed Growers' Association, was not only an interested spectator but

was on the job for business and took orders for several car loads of Wisconsin seed stock.

While the Wisconsin exhibitors were proud of their honors the most important feature of the show was the educational demonstration for farmers in corn belt states. The large number of blue ribbons the judges attached to the Northern Wisconsin exhibits convinced them that the "north country" is not in the arctic circle and that vegetables and root crops attain superiority in size, form and quality, in a region they had always regarded as unsuited to any form of agriculture.

Dollars and Sheep

Harry A. Fox, a McLean county farmer in North Dakota, has "killed two birds with one stone" by putting a small flock of sheep on his farm. In three years he has cleared more than 200 per cent in cash, has transformed his farm weeds into mutton and has "twice as many sheep as he had at the start. Mr. Fox bought seventeen sheep in 1917 and at the end of the season he sold the wool clip for \$59.

Emerging in good condition from the winter, the flock produced more than 100 per cent of lambs. Late in 1918 Mr. Fox sold twenty head for \$400 and the wool clip for \$106.

Again the herd foraged through the winter and last spring gave him another 100 per cent lamb crop. This year, being thoroughly convinced of their value as a permanent investment, Mr. Fox sold only two of the flock, receiving \$50 for them. He sold the wool clip for \$112 and has thirty-six sheep on hand.

During the three years that he has had sheep they have foraged more than eleven months of the year. He has sold sheep, lambs and wool to the amount of \$757 cash, used two for food, has thirty-six remaining and his original flock of seventeen cost \$340.

This lumber company was the first to bring cattle to its cut-over lands, and carry on profitable and successful grazing in Cloverland.

We offer Cut-Over Lands

in Dickinson, Baraga, Menominee, Iron,
Gogebic Counties, Cloverland.

*We own 15,000 acres in the Upper Peninsula of Michigan, and
20,000 acres in Forest and Florence counties, Wisconsin.*

J. W. WELLS LUMBER COMPANY
MENOMINEE, MICHIGAN

*The greatest hardwood mill in the world, with an annual
output of 51, 449,100 feet of lumber.*

A New Year's Resolution:

How can you
best carry out
this resolution

?

Write JOHN A. DOELLE,
Secretary-Manager,
UPPER PENINSULA DE-
VELOPMENT BUREAU
Marquette, Mich.

Resolved: THAT as long as Cloverland, the Upper Peninsula of Michigan, is MY HOME—as long as I LIVE in Cloverland, WORK in Cloverland, and THRIVE in Cloverland, I am going to get behind Cloverland—work FOR it, boost for it and do everything within my power to make it bigger and better, so that the end of the year now begun will find Cloverland a little better for my efforts, and that through my association with my fellow-men this message of "Service FOR Cloverland" will be so thoroughly inculcated into their lives that the beginning of another year will find the "Fellowship of Cloverland Boosters" ten thousand strong, with a firm resolve and determined purpose to stake their all on:

CLOVERLAND

This I resolve because I know that:

CLOVERLAND has sufficient natural resources to place it among the leading industrial centers of the world; the rich mineral deposits, the vast acreage of virgin timber, the fertility of the soil, the highways, railways and waterways are second to NONE for the possibility of their conversion into practical industrial pursuits.

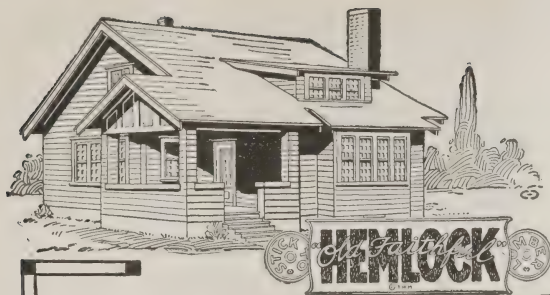
CLOVERLAND is one of the most attractive spots, scenically, in the country; the thousands of sparkling, crystal-like inland lakes and rapid-flowing streams; the dense forest; the rolling plain; the 800 or more miles of macadamized touring highways; the summer camping and resort sites—all contribute to make this—my home—a mecca for the motor traveler and the only sane, sensible location for the lover of the "great outdoors."

CLOVERLAND is destined to become a potential factor in the live stock industry of the country; the vast acreage of grassed, cut-over lands, left idle by the woodman's axe, is coming to be recognized as the westerner's oasis, and already thousands of head of live stock from the far west have come to take advantage of this unusual situation.

CLOVERLAND is undergoing a "commercial revival"; its citizens are taking hold; civic and commercial associations are springing up where none have existed before; communities are uniting to attract new industries; there is a growing tendency towards organizing and ADVERTISING natural resource.

FOR ALL THIS, THEREFORE, I FURTHER RESOLVE to exert to the utmost my influence in my community towards its growth, expansion, development and ultimate recognition as the BEST community in CLOVERLAND, the Upper Peninsula of Michigan.

(Signed) A RESIDENT OF CLOVERLAND.



PLANS FREE

for this and other "Old Faithful" Hemlock houses, barns and other buildings from a hen coop upward.

We want you to see for yourself that the great lumber stand-by of the American farmer is

**TO
GET THE
FREE PLANS**

SIT DOWN and write us for the "Old Faithful"

HEMLOCK Booklet No. 2, Farnhouses, or No. 1, Town Houses. (There are other books on all other farm buildings, too. Which do you want?)

If you are handy with tools you can build from them yourself. The books contain a COUPON GOOD FOR ANY TWO SETS OF PLANS FREE when presented to YOUR LOCAL LUMBER DEALER. He has the plans or can get them from us for you. We'll be glad to give you any advice or information we can. Just write and be sure to give your lumber dealer's name.

THE HEMLOCK MANUFACTURERS

(of Wisconsin and Northern Michigan)

312 F. R. A. Building

Oshkosh, Wisconsin

We spread the good news about "Old Faithful" HEMLOCK but we do not sell it. Get it from your Local Lumber Dealer.

WHAT THE

I. Stephenson Company Trustees

WELLS, MICHIGAN

Offer to Homeseekers on the Sunny Side of Cloverland, the Upper Peninsula of Michigan

- Choice of 400,000 acres of land at prices ranging from \$20 to \$30 an acre for cut-over land.
- A climate the same as upper New York, northern South Dakota and central Minnesota—this district is 600 miles south of the much advertised wheat belt of Canada.
- A variety of soils fit for all crops grown in the north temperate zone.
- Good roads, good schools, good water and climate.
- Home markets that now are forced to depend on outside communities for much of their food.
- Railroad service that brings 10,000,000 people within a night's ride for farm products, and the equal of that afforded the farmers of Indiana, Illinois and Iowa.

Fruit, Dairying and Live Stock,
Truck Gardening, Grains,
Root Crops

—An unsurpassed fruit country, protected by 1,000 miles of shore line along Lakes Michigan and Superior—a practical insurance against frost damage. A choice of five lines of farming.

Many Homeseekers Are Flocking to Northern Minnesota

By HON. FRED D. SHERMAN

Minnesota Commissioner of Immigration

NORTHERN MINNESOTA with its millions of acres of unimproved lands received a great influx of new settlers again this year. The fact that Northern Minnesota possesses some of the best soils to be found is added inducement to the man looking for a place to build a home for himself and family. The moderate prices asked for these lands is also largely responsible for the number of new farm homes being opened up in this section of the state.

Some new settlers take to farming and truck gardening, and have no difficulty in finding a ready market for all they raise. Others start in with dairying and truck farming and find this a very profitable means of making a living while opening a farm. Clover grows so profusely and so rank that there is no need to fear a

is necessary to bring forth wealth in this region is to turn to earth, plant the seed, give it proper cultivation and nature will do the rest.

It is not necessary to have a large tract of land to cultivate in Northern Minnesota to make it profitable. In the timber region every acre lies rich in growing soils and here truck farming and gardening is most profitable, while in the northwest section on the prairie lands small grain still brings forth the greatest wealth annually to the tiller of the soil. One fine feature of opening up a farm home in Northern Minnesota results from the fact that the settler does not have to have a large capital to start with. A few hundred dollars will enable any able-bodied man to get a good start in either the wooded section or prairie section of Northern



A Modest Beginning Which Will Soon Make a Good Farm Home

lack of excellent food for stock; fodder corn grows most rapidly, and even where silos are lacking this coarse food gives the owner of live stock added feed for the winter months, and this kind of stock rations is considered excellent for dairy cows.

Northern Minnesota is oft spoken of as "The Garden Spot" of the North Star State, and rightly so. Everything man or beast needs to keep the breath of life stirring can be raised on the soil of Northern Minnesota, and all that is necessary is a little attention in the planting and growing season.

The healthful climate of Northern Minnesota is another good reason why people enjoy life in that section of the state. The family located on one of the tracts of open prairie or cut-over lands in Northern Minnesota has a gold mine in disguise. All that

Minnesota. The necessary cash to make a small payment on the land and erect living quarters is all that one needs, although with greater capital the settler naturally has greater advantages. To own a home is one of the things every man and woman strives for from the time they start out in life and here in Northern Minnesota, the way is paved for thousands of families to secure that home if only they make the effort necessary. Many a man went in to Northern Minnesota a few years ago with very small capital and today owns farm property valued at thousands of dollars. No matter what your position today, there is an opportunity for you in Northern Minnesota, but delay is costly, as farm lands in this section are surely increasing in value, and will cost more each year, and yes, we might add, each month.

Save Best Grain for 1920 Planting

Large sized, heavy weight grain seed generally produces healthier and more vigorous plants and increases the chance for a larger yield. This being the case, it is well to hold back enough seed from market so that it may be run through a fanning mill and a percentage of the best selected for the coming crop. If any large amount of grain is to be marketed during the winter it might be worth while to run it through the fanning mill before marketing, saving out the best seed. Weed seed and screenings could be ground and used for feed.

At present prices of hay it is poor economy to haul the seed to the elevator and take a heavy dockage, especially if there is any feed value in the dockage. A fanning mill is used only a few days of the year and consequently should give good service to several farmers in a community, especially where the acreage of grain is small. There are several general purpose mills on the market that will do splendid work in all kinds of grain.—L. B. Bassett, assistant professor of farm management, Minnesota University Farm.

20,000 Acres CUT-OVER HARDWOOD LANDS

Abundance of timothy, clover and blue grass. Well watered with spring brooks. Unequalled for cattle or sheep ranch.

Price \$7 to \$10 an Acre

Special price on first section sold. Write for further particulars and map to

E. L. STANFORD, Marquette, Mich.

Getting Acquainted With the "North Country"

By CHARLES E. CHIPLEY

THE Sault Ste. Marie Civic and Commercial Association installed an exhibit at the National Hotel Men's Exposition in New York City which was held November 10th to 15th, the Hon. Chase S. Osborn, former governor of Michigan, gave an address on "The North Country" in the Convention hall, November 12th.

This effort for publicity was more or less experimental and was unique in that no other city in the United States was so represented. The resort advantages of other parts of the United States were co-operative, that is the New Hampshire hotels, New England hotels, Texas hotels and Florida hotels all had booths at the exposition.

As stated the proposition being experimental it created considerable interest throughout the Upper Peninsula as to its success, and some of the experience and knowledge gained through attendance at this exposition may be of interest to the people of the North Country.

We were disappointed in that the exposition was a much larger affair than figured on, covering three floors of the exposition building, with eight hundred and twenty exhibitors, thus to a great extent the personal touch was lost. Actually everything that a hotel man could use or would be interested in was displayed and it was a hard day's work to go through the exhibits and give them any sort of attention. In addition to the time necessary to examine the exhibits the hotel men were variously entertained and as is true with all strangers in New York they were busy looking for a good time. The search was particularly difficult under the present arid laws, and a once-over for the ex-

hibition was about all the time that a hotel man could spare.

The association can congratulate itself on distributing the most sought after literature of any of the exhibitors, and while a great deal of the material given away by the different exhibitors was thrown on the floor after a passing glance, none of the advertising material given by the North Country booth was ever seen on the floors of the Grand Central Palace, it was all taken home and in this way a most valuable distribution of information relative to this section was placed in the hands of the public who attended the show.

The convention hall, in which the meetings were held, was on the third floor of the building, and a person who started for the convention hall as an objective had to be very determined to finally arrive. Honorable Chase S. Osborn had the distinction of being the only speaker at the convention who filled the hall, and as is usual his remarks were enthusiastically received and his points energetically driven home to his audience.

For some years the writer has contended that Sault Ste. Marie has not advanced industrially as it should with its peculiar economic advantages for a manufacturer, because it is off the beaten track. There are few cities in America that have to offer the most constant and dependable water power in America at a price which can be only duplicated by Niagara Falls, lake and rail transportation, a dependable and contented labor market and a wealth of tributary raw material.

Lack of knowledge is the great big handicap to the progress of the entire

(Continued on page 55)

Attractive Opportunities

To buy cut-over range

and

agricultural lands

from an old, reliable lumber company at prices and on terms which are most attractive at this time, when

GREATER CLOVERLAND

is finishing a year of great success in sheep and cattle grazing on cut-over lands, and a year of unprecedented sale of and location on new farming locations in what Frank J. Hagenbarth says is "the greatest agricultural and live stock section in the United States, if not in the world."



For full information address

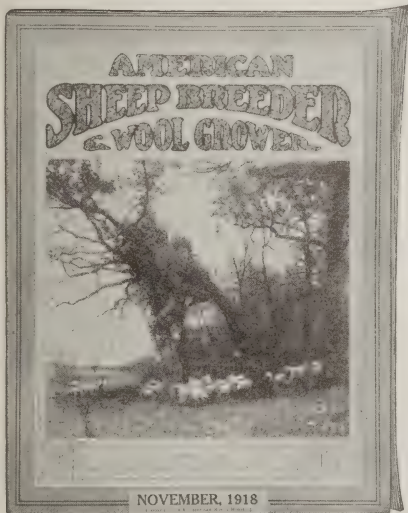
SAWYER-GOODMAN CO.

MARINETTE, WISCONSIN

Or

GOODMAN LUMBER CO.

GOODMAN, WISCONSIN



The American Sheep Breeder and Wool Grower

tells you how to feed and care for your ewes and lambs, keeps you posted on wool and mutton prices, informs you of the most efficient practice in combating disease, gives you others' experience as to breeding, shearing, feeding, shipping, winter care, equipment, buildings.

Put yourself heart and soul into the game and join the brotherhood of shepherds.

Only \$1.25 per year. Subscribe now, mentioning this ad, and get fifteen months for the price of twelve.

Clubbed with Cloverland Magazine, \$2.00 per year.

The American Sheep Breeder Co.

U. S. YARDS, Chicago, Illinois

SOMETHING CLEAN CUT

Something clean cut is what the cattle man wants and he doesn't take long to decide when he sees it.

Cloverland has proven its worth from the cattle man's standpoint. The Northern Michigan Land Company has recognized this and are ready to meet him half way or better.

We want to hear from more of you cattle and sheep men who are not getting the results you should in your present location.

Our lands are ready for inspection and our cruiser is at your command. Meet the grazers who are making a success here and form your own opinion of this country.

Learn more about Cloverland; send us an inquiry stating what plan you are interested in and we will give that inquiry such attention as will bring you to Cloverland and make you one of the many prosperous grazers wedded to this ideal country

How would 5,000 acres, fenced, equipped with suitable buildings, reasonable acreage cleared ready for cultivation, appeal to you?

With a payment down easily within your reach and the balance spread over the years which your increase will easily take care of? Write us for detailed information.

Proposition 5-A

**5,000
Acres**

**10,000
Acres**

Exceptional tract of land for cattle men who want to locate in Cloverland.

This we will fence, provide suitable buildings and clear land enough to provide winter feed; make a price, including everything; spread the payment over a period of ten years; initial payment within the reach of any cattle man equal to the job.

Proposition 10-A

Last But Not Least

We are keenly interested in the diversified farmer who is in the market for 80 or 160 acres and our proposition will bear this out. We have set aside a 25,000 acre tract that we are colonizing under the following plan:

Ten acres cleared ready for cultivation, comfortable house and barn, two horses, two cows, two pigs, 25 chickens and machinery necessary for such a farm.

Our inquiries on this land have shown how keenly interested people are to own a home and they fully realize under this plan success is certain. Write us for information on our 80 acre plan.

**80 or 160
Acres**

THE NORTHERN MICHIGAN LAND CO.

PIONEER BUILDING
SAINT PAUL, MINN.

C. A. McCANN
PRESIDENT

309 CASWELL BLOCK
MILWAUKEE, WIS.

Winter Care of Sheep

(Continued from page 8)

"Never feed fodder or hay day after day in the same place on the ground. Sheep do not like to eat from a place where they must muss over the feed.

"When silage is not available, breeding ewes can be wintered up to near lambing time on shock corn and alfalfa clover. The ewes can be fed the shock corn on frozen ground or pasture when the weather is not stormy. Feed the shock corn sparingly until the ewes learn to husk it themselves—then they can be fed enough shock corn to make one larger ear to each ewe per day. The ears are easily counted as the shock corn is scattered. Always allow a few ears extra if it is a large bunch of ewes.

"Feed the clover or alfalfa in racks at evening.

"There are numerous combinations of feeds for ewes. The feeds to be fed depend upon the feeds that you can grow on your farm and the kinds that you can buy the cheapest, providing they are good and suitable feeds.

"Breeding ewes should not be allowed to become thin in flesh. They should always have protein feed in winter, such as alfalfa, clover or bean hay, oil meal, wheat bran, brewer's grains, or gluten feed, to maintain their muscle and blood supply and to develop the unborn lambs. Cotton seed meal is a good protein feed and can be fed safely with silage.

"It is always best to grow the clover or alfalfa to provide protein and not buy too much expensive feed.

"Watch the ewes closely at lambing time to see that the new-born lambs do not get lost from their mothers and that they get the first mess of milk promptly—after that, they will stand considerable cold and will look after themselves in a surprising manner if they have good mothers. Don't neglect them.

"It is a good plan to have hurdles six to eight feet long made of light boards or lath, which may be set across corners of the sheep house to make separate pens for the ewes while their lambs are young. The hurdles can be tied in place with string or wire. Separate pens are especially important with ewes that have twins, to keep the ewe and lambs together, so that the ewe will not disown one of the lambs.

"Keep hogs and other stock away from the ewes and lambs. Hogs will eat the lambs while they are young and horses and cattle will tramp and injure them if confined in the same yards or sheds.

"Early shearing is always advisable if there is shelter for the ewes on cold nights and from rain.

"If there are ticks on the ewes dip both ewes and lambs right after shearing. Be sure to dip the lambs, as the ticks will move to the lambs after the ewes are shorn.

"Ewes should be fed like dairy cows if they are to produce a lot of milk.

"Don't feed a ewe much grain for a day or two after the lamb is born—then her feed can be increased until the lamb learns to eat hay, grain, and grass, when her feed can be reduced and more given to the lamb.

"Build a creep for the lambs, (a creep is a panel or fence with slats or palings far enough apart to let the lambs through, but not the ewes), and place a feeding trough inside the creep in which the lambs can be fed.

"Always make a lamb tough so the lambs cannot jump into it and soil their feed. Feed for the lambs at first on wheat bran, cracked corn, a little oil meal, or any clean ground feed until they learn to eat. Then they can be fed cracked corn and oats, oil meal and silage, or any good feed or combination of feeds.

"Fix the hay racks for both ewes and lambs so the lambs cannot get upon the hay with their feet (lambs delight in climbing into racks). Give the lambs choice bits of alfalfa or clover hay. They will soon learn to eat silage.

"A fat lamb at weaning time (lambs

should be weaned when four months old), will usually bring as much as it will two months later and often as much as it will bring after being fattened in the winter. It is the practice on many farms to sell the lambs right off the ewes; others keep the lambs to fatten and sell during the winter; others do not sell the lambs until they are one year old, thus getting one fleece from them. Shearing is advisable with the fine wools as they produce heavier fleeces and do not mature quite so rapidly as the mutton breeds.

"Keep a few of the best ewe lambs each year and discard a few of the older and less useful ewes.

"When lambs are to be sold at weaning time it is usually profitable to feed them grain until they are sold. This can be done by building a pen or creep in the pasture in which to feed them.

"If the pasture is good and the lambs are fed grain liberally, feeding the ewes grain can be discontinued when the lambs are two months old.

"Lambs grown for feeders, to be fattened during the winter, need not be fed as much grain during the summer as lambs that are to be sold at weaning time.

"Where there are but few sheep on the farm and there is plenty of range, fat lambs can sometimes be grown without feeding either ewes or lambs grain after the grass is plentiful.

"If the ewes and lambs can have a fresh pasture every two weeks until the lambs are weaned, there will be little danger from stomach worms. Where there are only a few ewes on a farm this plan can be worked out.

"If it is not possible to have change of pastures a close watch must be kept for indications of stomach worms. By all means furnish the lambs fresh pasture after they are weaned.

"Rape and sweet clover can be sowed with oats in spring and after oat harvest the rape and clover will furnish excellent pasture.

"If the lambs are not sold at weaning time there is no better place for them than in the cornfield to eat weeds and lower blades of corn.

"Always arrange so that both ewes and lambs can get pure water. Sheep will get along on pasture without water, but they will do better with it.

"Sheep and lambs should have salt where they can get to it the year round. It will do no harm to have tobacco stems where the lambs can always get them; they will help prevent stomach worms.

"After the lambs are weaned the ewes can be used to clean up lots and fields on any part of the farm.

"From August to November they can have the run of meadows, stubble fields, and wheat fields until the wheat comes up, eating volunteer grain and the grass and weeds along the fences. They can spend a few days in each of the barn lots. It will not harm mature ewes to occasionally confine them on weed patches until they clean up the weeds thoroughly."

The foregoing, of course, pertains to farm conditions. There is a distinct difference between ranging sheep and handling them on a farm basis.

First, it is distinctly advisable to prepare the cut-over ranges before turning sheep upon them. By preparation is meant some clearing. This clearing may be hand work or it may be the result of previous pasturing. In other words, anything that will break down the brush, let in the sunlight, and provide some open places, will do it.

It is not best to range sheep on heavy, brush-covered territory. High land must be selected. Open land is essential. There are thousands—and perhaps millions—of acres in the Great Lakes basin well suited to range sheep. There is just as much acreage, however, that will not range them. Owners who attempt grazing on low lands, in swampy areas, or on a range that is densely covered with brush are very likely to fail.



Land Buyers Enough to Reach around a Farm 25 Miles Square

The surest way to sell farm property is to put your proposition before the greatest possible number of prospective buyers.

The Milwaukee Journal offers you the one logical means of doing this. On the basis of three readers for each Journal sold, more than 300,000 people read The Journal every day. If these people should stand shoulder to shoulder, they would form a line over 500,000 feet long, enough to completely fence in a farm of 400,000 acres. A living, human fence of BUYERS one hundred miles long.

You can bring your farm sales message before this multitude of prospective buyers by a "Farm for Sale" ad in The Journal. You can effectively reach the greatest number of possible purchasers at the very LOWEST cost.

If you have farm property for the market, let The Journal act as your sales representative. Watch the BIG RETURNS it will pull.

Facts That Prove JOURNAL Supremacy

Daily circulation is more than 50% greater than that of any Wisconsin newspaper.

Sunday circulation is more than 65% greater than that of any other Wisconsin newspaper.

The Journal is read in four out of every five English speaking families in Milwaukee. It has a rural circulation of nearly 40,000.

The Journal is read by more farmers and breeders than any daily newspaper published in the northwest. It covers Milwaukee and Wisconsin like a blanket.

The Journal carries more farm advertisements than any other Wisconsin medium. The Journal has more readers and more buyers.

Lowest advertising rate per thousand circulation of any newspaper in Wisconsin.

The Journal has prepared several pieces of educational and informative literature that will interest you. Agricultural Wisconsin—Real Estate License Law—License Application Blanks. Send for your copies today. We will gladly send them to you gratis.

During the First Nine Months of 1919

The Journal published 54,403 Real Estate Ads.

Second Paper published 18,136 Real Estate Ads.

Third Paper published 11,372 Real Estate Ads.

Fourth Paper published 3,461 Real Estate Ads.

The Journal published 24,434 more Real Estate Ads than all the other Milwaukee newspapers combined. The Journal publishes four times as many farm ads as any other Milwaukee newspaper.

The Milwaukee Journal

CLASSIFIED DEPARTMENT

Our 1919 Importation Now on Exhibition

We are pleased to announce the safe arrival of an unusual collection of fine registered sheep. They represent many years of skillful improvement in the hands of master breeders. There are four breeds—

CHEVIOTS, SHROPSHIRE, SOUTHDOWNS, HAMPSHIRE

A cordial invitation is extended to everyone interested in good sheep to visit our farm. We offer for sale over 1,500 head of all ages and both sexes.

\$150,000 FLOCK TO SELECT FROM

One of our rams will bring fresh blood and improvement to your flock. We are specialists in fitting sheep for exhibition and can turn you out a show flock ready to win. Come if you can—if not, write.

GLIMMERGLEN FARMS, Inc.

Importers and Breeders, Cooperstown, N. Y.

W. T. HYDE, Pres.

E. E. GIFFORD, Mgr.

Cooperstown is on the Delaware and Hudson Railroad, 82 miles southwest of Albany.

OXFORD DOWNS

Choice breeding ewes by imported sire for sale. Also this year's crop of lambs sired by the champion ram at Wisconsin State Fair in 1918.

W. D. MCGILL & SON, Templeton, Wis.

DORSET HORNED RAMS AND BRED EWES

A few choice yearling rams, early ram lambs, and good ewes from two to five years old, bred to lamb in season suitable to climate. A "dog proof" sheep. Prices right.

WILLIAM A. HOOVER, Selma, Indiana

**Improved LANDS Cut-over
VAN ORDEN BROS.**

Houghton

"Cloverland"

Michigan

The Splendid Service and the Great
Harnessed Water Power

OF THE

M. & M. Light & Traction Co.

have made Menominee the Power City of Cloverland, and Menominee County the best lighted county in the Northwest.

THOROUGHBREDS!

(Continued from page 7)



La Salome, Grand Champion Stallion at the International. Owned by Frank Irvine.

information relative to each animal, for example: Age, markings, and a statement as to individuality, weight, sire, dam and record of production, if a dairy animal.

"Breeders are urged to list only such bulls as are a credit to their breeds—bulls of good individuality, well raised and free from disease. The placing of inferior animals will not only harm the breed but discredit the breeder who offers them for sale.

"The success of the campaign depends in a large measure upon the bulls selected. The placing of good pure bred bulls means the creating of

a demand for more and better live stock.

"Through the medium of the press, through meetings, by personal work, grade and scrub bull owners are being made to see the advantage of using animals of good breeding. Every Wisconsin breeder has a responsibility which we believe he will meet squarely."

The above is signed by M. B. Wood, secretary, Western Breeders' Assn.; J. R. Garver, secretary, Wisconsin Holstein Breeders' Assn.; J. G. Fuller, secretary, Wisconsin Aberdeen Angus Breeders' Assn.; C. W. Thompson, secretary, Wisconsin Hereford Breeders' Assn.; L. C. Underwood, secretary, Wisconsin Red Polled Breeders' Assn.; J. L. Tormey, secretary, Wisconsin Shorthorn Breeders' Assn.; A. J. McNab, secretary, Wisconsin Ayrshire Breeders' Assn.; B. H. Hibbard, secretary, Wisconsin Brown Swiss Breeders' Assn.; and Charles A. Peterson, secretary, Wisconsin Jersey Breeders' Assn.

Finally and as indicative of the fact that the pure bred sire doesn't apply alone to beef or dairy cattle, the following is quoted from a statement by George McKerrow, one of the foremost sheep breeders of the United States.

"The sire is half the herd or flock. So far as it relates to pure bred herds where each sex has an equal influence this is true, but where a scrub herd is to be improved by the pure bred sire, then the sire becomes more than half the herd because all blood line improvement must come through that sire.

"The 'feed cross' should always go hand in hand with the breed cross.

"If these United States are to receive full benefits from the live stock demands of Europe in the reconstruction period, a strong combination of type and performance must be shown in the individual. Pure bred sires must be kept at the head of each herd or flock.

"The progressive stockmen of Europe, who will lead in this re-stocking work are, as a class, men who know and demand individual quality as well as good breeding. To meet their demands we must use the best of sires and feed the offspring into well grown individuals.

"Let our motto be: 'The best are none too good.' Then, and only then, can we be sure we are doing our best for God, home, and native land, and for the world at large."

**FLORENCE COUNTY,
WISCONSIN LANDS**

for sheep and cattle ranches, in tracts of 320 acres up to 5,000 acres. For full particulars, write

PETER MCGOVERN LAND CO., Florence, Wis.

SHEEP and CATTLE

Find the Best Grazing Lands in the world in Northern Wisconsin and the Upper Peninsula of Michigan.

We offer great inducements.

Write Us for Particulars

BALDWIN CORPORATION, Appleton, Wis.

Getting Acquainted With the "North Country"

(Continued from page 51)

Upper Peninsula of Michigan, as shown by the fact that the great cattle men of America knew nothing of the wonderful grazing opportunities of the North Country until the same was brought to them on a platter by the Upper Peninsula Development Bureau. By the fact that while Cloverland agricultural land is as productive as any on the continent today, improved farms of greater productive value and with excellent transportation facilities are selling in the Upper Peninsula of Michigan for 25 per cent of the price received for Wisconsin and Illinois farms.

The general public of the East are just beginning to hear about Detroit. Having seen the name on so many automobiles they know that somewhere in Michigan is a city of that name manufacturing automobiles, but they do not know, except in a general way where Detroit is, or the magnitude of its automobile industry. The impression made on their minds is well illustrated by the story, "That a man who was figuring on the purchase of a new car inquired of a friend as to the make which he would recommend; after going into the merits of the various cars he suggested that there was a new car that he had seen mentioned many times that he would advise looking up before buying, which was called 'F. O. B. Detroit.'" Concerning the country north and west of Detroit, which we call the North Country, they know absolutely nothing. The average easterner knows more about South America and Africa, geographically, physically and climatically, than he does about the country bordering Lake Superior.

It is often stated that Sault Ste. Marie is widely known on account of the locks being located at this point

and because it is one of the oldest established settlements in the United States. It is still advisable, however, in sending telegrams, express or ordering merchandise from stores for a person giving his residence as Sault Ste. Marie to write it himself in order to avoid mistakes in the address. If this is true of a city which, owing to the locks controls one of the most important transportation arteries in the United States, what does the average easterner know about the Upper Peninsula of Michigan, or its principal cities, such as Marquette, Menominee, Manistique and Escanaba?

There is just one way to put the Upper Peninsula of Michigan on the beaten path and in the eye of the investing public, and that is by publicity, similar to the publicity employed by the Upper Peninsula Development Bureau in bringing the cattle men.

The Sault Ste. Marie Civic and Commercial is satisfied with its personal distribution of some six hundred pounds of attractively illustrated advertising literature, placing in the hands of thousands of people, information relative to this country which they could in no otherwise obtain. The experiment was an expensive one for a small city such as the Sault, but we hope that the great lesson learned at the exposition, the need of publicity, will make our effort in taking information to the easterner, but the first step in a broad scheme of publicity, which owing to its expense must of necessity be undertaken in a co-operative way by all the cities in the Upper Peninsula of Michigan, if we expect to realize as we should realize, on our great natural advantages before those of the present generation have ceased to worry about the affairs of this world.

Oneida County Wisconsin

Where 25,000 western sheep were pastured this season

Some of these Stockmen are Wintering Here

Range for thousands more. Abundance of good water, grass and clover. Plan to graze in Oneida County, Wisconsin, in 1920, and then pick out your permanent ranch.

ADDRESS

**County Board of Supervisors
RHINELANDER, ONEIDA COUNTY, WIS.**

250,000 Acres

Unimproved cut-over lands for sale in tracts to suit the purchasers

Located in fourteen counties in Cloverland — the Upper Peninsula of Michigan.

Prices \$5 to \$15

Per acre. Terms reasonable

Write me for definite quotations, maps, etc.

J. M. LONGYEAR

Marquette, Michigan

These Strong Cloverland Banks Are Ready and Willing to Give Every Possible Co-Operation to New-comers. They Invite Correspondence.

First National Bank of Calumet

Calumet, Michigan

Capital \$200,000.00

CALL IN AND SEE US

We are always pleased to serve you

Officers: John D. Cuddihy, Pres.; Edward Uleth, Vice Pres.; Edward F. Cuddihy, Cashier; Daniel C. Harrington, Asst. Cashier; Pierce Roberts, Asst. Cashier.

First National Bank of Bessemer

Bessemer, Michigan

Capital, Surplus and Profits,
\$150,000.00

Oldest Bank in
Gogebic County

First National Bank of Menominee

Menominee, Michigan

Resources Over \$1,600,000.00

Oldest and largest Bank in Menominee County and under same management for 32 years.

Depository for United States and State of Michigan

Officers: G. A. Blesch, Pres.; John Hones, Vice Pres.; C. W. Gram, Cashier.

The Lumbermen's National Bank

Menominee, Michigan

One of the Oldest and Strongest
Banks in Cloverland

Officers: Warren S. Carpenter, Pres.; Wm. Webb Harmon, Cashier.

ESCANABA

is the leading city in Cloverland.

The leading bank in that city is the

Escanaba National Bank

Correspondence invited.

Commercial Bank of Menominee

Menominee, Michigan

"The Bank of the People"

invites correspondence from prospective settlers. You can bank by mail with us.

The First National Bank of Alger County

Munising, Michigan

Officers: William G. Mather, Pres.; G. Sherman Collins, Vice Pres. and Cashier; John N. Korpela, Asst. Cashier.

Houghton National Bank

Houghton, Michigan

United States Depository

Capital \$200,000
Surplus \$200,000
Undivided Earnings \$250,000

Officers: J. H. Rice, Pres.; W. D. Calverley, Vice Pres.; A. N. Bandin, Vice Pres.; C. H. Frimodie, Cashier; R. T. Benallack, Asst. Cashier; Edward Boudt, Asst. Cashier; F. C. Stoyke, Asst. Cashier.

The State Bank of Ewen

Ewen, Michigan

Officers: L. Anderson, Pres.; J. S. Weidman, Jr., Vice Pres.; E. J. Humphrey, Vice Pres.; A. M. Anderson, Cashier. Directors: L. Anderson, Caldwell, Mich.; J. S. Weidman, Jr., Trout Creek; E. J. Humphrey, Ewen; J. V. Horvath, Bruce Crossing; J. F. Foglesong, Ewen; Nugent Dodds, Ewen; A. M. Anderson, Ewen.

The Newberry State Bank

Newberry, Michigan

Capital, \$30,000.00

Surplus, \$6,000.00

A General Banking Business. Commercial and Savings Departments.

3% Interest paid on Savings Deposits.

Officers and Directors: F. P. Bohn, Pres.; W. G. Fritz, Vice Pres.; L. H. Fead, Vice Pres.; E. M. Chamberlain, Cashier; E. L. Fritz, Andrew Weston, J. C. Foster, Matt Surrall.

First National Bank of Iron River

Iron River, Michigan

Capital, \$50,000.00

Surplus, \$20,000.00

We invite letters of inquiry regarding Iron County

Officers: Ellsworth S. Coe, Pres. Wm. J. Richards, Vice Pres.; A. J. Fohland, Cashier.

First National Bank of Sault Ste. Marie

Sault Ste. Marie, Michigan

Since 1886 this strong bank has been interested in the growth and development of Chippewa County. Correspondence invited.

Officers: R. G. Ferguson, Pres.; Otto Fowle, Vice Pres.; Chase S. Osborn, Vice Pres.; E. H. Mead, Vice Pres.; Fred S. Case, Vice Pres. and Cashier.

First National Bank of Marquette

Marquette, Michigan

Over \$2,000,000.00 Resources.

Officers: Louis G. Kaufman, Pres.; Edward S. Rice, Vice Pres.; Charles L. Brainerd, Cashier.

First National Bank of St. Ignace

St. Ignace, Michigan

The oldest and largest Bank, and the only National Bank in Mackinac County. Your business inquiries will receive prompt and courteous attention.

Officers: O. W. Johnson, Pres.; E. H. Hotchkiss, Vice Pres. and Cashier.

Marquette National Bank

Marquette, Michigan

Capital and Profits, \$160,000.00

United States Depository

We invite correspondence

Officers and Directors: J. M. Longyear, Pres.; D. W. Powell, Vice Pres.; F. H. Bagley, Vice Pres.; F. J. Jennison, Cashier; H. R. Fox, Asst. Cashier; E. A. Brown, Second Asst. Cashier; J. G. Reynolds, Wm. G. Mather, Daniel W. Powell, A. T. Roberts, Austin Farrell, Dan H. Ball, R. P. Brown.

The Marquette County Savings Bank

Marquette, Michigan

Officers and Directors: H. L. Kaufman, Pres.; S. R. Kaufman, Vice Pres.; G. A. Carlson, Cashier; O. E. Barber, Asst. Cashier; E. J. Hudson, R. S. Bice, Louis G. Kaufman, Chairman, Advisory Committee

Good Ration Proportions for Cows

Feeding cows regularly and according to their production is a practice followed by successful dairymen. Sunlight, fresh air, fresh water, and good treatment help to get more milk.

A good rule for feeding according to production is to allow every 1,000-pound cow one pound of concentrates (grain and mill feed) for every three or four pounds of milk produced. Cows producing a high percentage of butterfat should receive the greater proportion of concentrates. In addition to concentrates there is needed one of these:

Thirty pounds of corn silage and ten pounds of hay; or,

Thirty pounds of roots and fifteen pounds of hay; or,

Eight pounds of dried beet pulp

(soaked twenty-four hours) and ten pounds of hay; or,

Twenty pounds of clover or alfalfa hay; or,

Twenty pounds of timothy, prairie, or marsh hay with one to two pounds of oilmeal.

The poorer the quality of roughage the better the concentrate mixtures should be. Two mixtures advised by the animal husbandry department of the Wisconsin College of Agriculture are:

Corn and cob meal, 100 pounds; ground oats, 200 pounds; wheat bran, 100 pounds; oilmeal, 100 pounds; glutin feed or dried brewer's grains, 100 pounds.

Ground oats, 200 pounds; ground barley, 200 pounds; wheat bran, 200 pounds; oilmeal, 100 pounds.

Big Revenue from Poultry and Eggs

With the high price of eggs, poultry raisers of southern Carlton County, Minn., are learning that there is nothing on the farm that brings them a bigger revenue than the hen.

Hugo Anderson, a successful poultry man at Barnum, has electric lights for his chickens. Here also, the experiment is being tried of using clay floors, as they are much warmer than cement.

Mrs. L. J. Beck of the town of Skelton cleared, in the past year, \$623.34 from 190 hens. Mrs. Beck's pullets commenced to lay when four months old and she attributes this to keeping buttermilk constantly before them and feeding all the milk mash they could eat the first six weeks.

Vermin never weaken this flock as roosts are cleaned every day and once a month painted with a mixture of carbolic acid and kerosene. Mrs. Beck mixes her own scratch feed, but uses the commercial egg-mash.

F. E. Bauer's flock, near Barnum, has averaged in eleven months 156 eggs each. Bauer's poultry house is electric-lighted and it has been proven to his satisfaction that a hen cannot consume enough feed in a short winter day to leave any surplus for egg making without artificial lighting.

J. P. Peterson, Mahtowa, has a flock of 200 hens that cleared \$626.51 for their owner last year. A. Nasenius also has a fine flock that averaged 190 eggs last year. He purchased 225 day-old chicks and raised every one.

National Potato Growers Elect Officers

The National Association of Potato Growers held a meeting in conjunction with the Wisconsin Potato Exhibition at Milwaukee and elected the following officers: President, C. W. Waid, East Lansing, Mich.; vice president, Justus Miller, Toronto, Ont.; secretary-treasurer, G. W. Milward, Madison, Wis.

Implement Dealers Elect Officers

The Wisconsin Implement Dealers' Association held its annual meeting in Milwaukee at the time of the state potato show and elected the following officers: President, Charles Schraeder, Markesan; vice president, E. W. Robbins, Eau Claire; secretary-treasurer, R. G. Nuss, Madison.

Choice Cut-Over Hardwood Lands

Especially adapted to grazing and general farming, located on trunk line railways twelve hours from Chicago markets. For sale, in small or large lots, at reasonable prices, terms to suit purchasers. For particulars write

The Northwestern Cooperage & Lumber Co.

GLADSTONE, MICHIGAN

For Sheep and Cattle Ranches

Write to

GRIMMER LAND CO., Marinette, Wis.

Owners of a large acreage in Cloverland

Oconto County Wins the Wisconsin Potato Prize

(Continued from page 34)

consin, which entered the state contest:

1. Oconto	\$3.1
2. Barron	\$2.8
3. Oneida	\$2.1
4. Waupaca	\$1.1
5. Price	\$0.8
6. Lincoln	\$0.7
7. Shawano	\$0.6
8. Marinette	\$0.5
9. Rusk	\$0.4
10. Sawyer	\$0.3
11. Vilas	\$0.2
12. Forest	\$0.1
13. Langlade	\$0.0
14. Taylor	\$0.0
15. Chippewa	\$0.0
16. Dunn	\$0.0
17. Washburn	\$0.0

Individual winners from Oconto County were the Oconto Lumber Company, J. I. Ethridge, farm manager, first prize on Early Ohios, and O. B. George, fourth, on Rural New Yorkers. The gain for Oconto County in addition to winning the honors is a de-

mand for certified seed from that county, and the farmers already have indicated that they will make special efforts along that line next year, especially with Rural New Yorkers.

While the exhibition was the best ever seen in the state, the growers were not well satisfied with the attendance and well directed efforts are now being made to have all future shows held in the north part of the state, where the exhibition potatoes are grown, which would also reduce cost of transportation and railroad fare. Green Bay and Eau Claire already are out for the honor next year.

J. W. Hicks, of Prentice, was elected president of the Wisconsin Potato Growers' Association; L. S. Cuff, of Barron County, vice-president, and G. W. Milward, of Madison, was re-elected secretary-treasurer.

Sells Cattle Half Cent Below Cost and Makes Profit

A badly demoralized market did not prevent Louis Nadeau, of Nadeau, Michigan, from making a good profit on a bunch of heifers he purchased last spring. He bought 47 two-year-old grade Shorthorns in Chicago in April at 8 cents and marketed them at the Twin City Packing Company, Menominee, Michigan, at 7½ cents in November. Although sold a half cent lower than the cost, the heifers put on so much fat they made him \$400 net profit. Had the market been normal the heifers would have brought 10 cents.

These heifers did not even know the taste of grain. They were turned out in cut-over land pasture adjoining the

farm, not being permitted to graze on the improved land. The stump land had been burned over until all the underbrush was gone and then a little seed was scattered broadcast without harrowing or discing. Ten days before marketing Mr. Nadeau brought the cattle into the barn lot because of unusually early snow, and fed them nothing but corn silage, giving them just enough to hold up their grass condition until the market looked better. He made a liberal allowance of \$100 to cover this cost of feeding.

The heifers averaged 510 pounds when purchased in Chicago, and averaged 703 pounds when marketed in Menominee, a net gain of 193 pounds.

The Sweetest Money Crop the Farmers Grew in 1919.

\$625,000

PAID TO FARMERS FOR SUGAR BEETS 1919 CROP

BY THE MENOMINEE RIVER SUGAR COMPANY MENOMINEE, MICHIGAN

ESTABLISHED FOR SEVENTEEN YEARS



CATTLE and Sheep Men locating in this vicinity will find us both able and willing to assist them.

SAULT SAVINGS BANK

"THE BANK FOR YOU" SAULT STE. MARIE, MICH.

GIRARD LUMBER COMPANY

J. W. Wells, President

WE offer the western grazers their choice of 10,000 acres of Cut-over Lands in Cloverland, Northern Michigan; 30,000 acres of cut-over land in Florence and Forest counties, Wis.

Write Us for particulars or come and see these lands for yourselves.

Several ranches were selected and taken over this year by well-known western cattle and sheep men.

GIRARD LUMBER COMPANY DUNBAR, WISCONSIN MENOMINEE, MICH.

Cloverland Bargains

Rate: 5 cents a word for each insertion. Copy for the Cloverland Bargains column must be in the office not later than the first day of the month for publication in the current issue. Address all want ads to Cloverland Magazine, Cloverland Bargains Department, Menominee, Michigan.

FOR SALE—347-Acre farm located in Northern Central Wisconsin, now being operated as sheep ranch and general farming—have 400 sheep now, 120 tons good hay—necessary implements—horses, etc.—good soil for all grains and hay—raised 200 bushels potatoes per acre this year—fenced and cross-fenced complete with woven wire, excepting 40 acres—new sheep sheds—other buildings in fair condition—approximately 50 acres under plow, 100 acres brushed and in pasture brought about growth of brush with excellent pasture—Land is capable of pasturing 800-1000 sheep—Large sheep raisers near by. Due to inability to live on farm will sell farm, live stock, hay, grain and implements as a whole or in part. Write for details. F. A. B., care Cloverland Magazine.

CAN HANDLE several farms of 120 to 240 acres if partly improved. Fair buildings stock, etc. Parties prefer Central and Northern Wisconsin. Walter Miller, 320 Brumder Bldg., Milwaukee.

AMBITIOUS young man desires position on modern sheep farm or ranch. Plenty of experience and three years of agricultural college training. W. E. Koehler, Menominee Falls, Wis.

ATTENTION—Carley and Keen of Limestone, Mich., after trying out Cloverland has just purchased through me 720 acres and will begin clearing and erecting buildings for feed and housing at once. This proves the possibilities of Cloverland. William J. Weston, Oak Ridge Dairy, Wakefield, Mich.

FOR SALE—140 Graded Merino breeding ewes. They are young and large and fences; located 7 miles from Menominee in excellent condition. \$12 a head, Lakewood, Wis. Address, Wallace Bros., Lakewood, Wis.

HAY—Write or wire us for prices on Hay in carload lots. Our motto: "Quality, Service and Value." Dafter Hay & Grain Co., Dafter Mich.

INFORMATION FOR THE ASKING—New County of the county of a million acres, presents wonderful opportunities to the cattle raiser, dairyman and general farmer. Sault Ste. Marie—its market, with lake and rail transportation, a wealth of forest products and cheap electric power (13,500 h. p.) is destined to be the most important manufacturing center of Northern Michigan. For information and booklet write Civic and Commercial Association, Sault Ste. Marie, Mich.

FOR SALE—80-Acre farm, 40 acres under cultivation; good clay loam soil; 5-room house; barn; good well water; good fences; located 7 miles from Menominee on fine macadam road to city. A splendid farm and a bargain on easy terms. S. V. Tart, 2007 State St., Menominee, Mich.

HEWLETT buys and sells sheep, 1,000 good 2-year-old ewes for sale, now ready delivery. If you have good sheep to sell or want to buy, write F. R. K. Hewlett, Lake Ives Ranch, Big Bay, Mich.

IDEAL SHEEP LAND—Fertile soils that grow corn, wheat, oats, barley peas, vetch, clover, alfalfa, fruit and vegetables, in 1,000, 2,000 and 3,000 acre tracts, and smaller if desired. \$10 to \$15 per acre, easy payments, interest 6%. Easily cleared, well grassed and watered by road and streams. Located in the heart of Lower Michigan's clover seed belt. No cash payments required if responsible purchaser will grow annually 4 per cent of acreage to clover and apply proceeds from seed yield upon payment of land until paid for. Clover seed one year after purchase in Presque Isle County nets growers \$100 an acre. John G. Krauth, Millersburg, Mich.

IN WISCONSIN'S CLOVER BELT, tracts of 40 to 2,000 acres for cattle or sheep ranches, fresh running water, good fences, unexcelled anywhere. \$15 per acre. Write for information and terms. J. B. Saunders & Co., Park Falls, Wis.

FOR SALE—Breeding and feeding sheep. Bucks. Shetland ponies. Dogs. Pure bred Poultry. Pet stock. Write, White, the Sheep Man, Cogswell, No. Dak.

REPUTATION SEEDS—For northern gardens and farms. Also seed and plants for all occasions. Duluth Floral Co., Duluth, Minn.

COLLECTIONS—The Cloverland Mercantile Agency, Law and collections everywhere. Address, John L. Loell, Legal Department, First National Bank Bldg., Escanaba, Mich.

FOR SALE—Any part of 100,000 acres stock lands or farms in Michigan or Wisconsin. Write for books and prices. Menominee Abstract & Land Company, Menominee, Mich.

INFORMATION FREE—Anything you want to know about Wisconsin, its resources and opportunities will be cheerfully given upon request. Milwaukee Chamber of Commerce, Athletic Club building, Milwaukee, Wis.

UPPER WISCONSIN, 1,000 acres, solid body, within 1½ miles of city seat. Wagon road through it, choice cut-over hardwood land. Will sell, lease or go in on shares with parties owning cattle, sheep or goats. For particulars write McGovern Land Co., Florence, Wis.

FOR SALE—We own 15,000 acres of cut-over lands in Dickinson, Baraga, Menominee, Iron, and Gogebic counties in the Upper Peninsula of Michigan; 20,000 acres in Forest and Florence counties Wisconsin. Any size tract on easy terms. J. W. Wells Lumber Co., Menominee, Mich.

STOCKERS AND FEEDERS—Our men being always on the market know values and available offerings, and are therefore in a position to supply your wants to the best possible advantage. Clay, Robinson & Co. Chicago, South St. Paul, Kansas City, Omaha, St. Joseph, Sioux City, St. Louis, Denver, Buffalo, Ft. Worth, El Paso.

FOR SALE—We own and offer some fine bargains in tracts of 150 up to 50,000 acres. Grimmer Land Co., Marinette, Wis.

FOR SALE—We have tracts of cut-over lands of all sizes for practical stockmen who want to succeed in a permanent manner. Consolidated Lumber Co., Manistique, Mich.

FOR SALE—Choice cut-over hardwood lands, especially adapted to grazing and general farming. Small or large tracts at reasonable prices, terms to suit purchaser. Northwestern Copperage & Lumber Co., Gladstone, Mich.

FOR SALE—520 acre farm, all cleared with exception of about 15 to 20 acres of timber; two large basement barns; big house; farm implements; 35 head fine Holstein cows. No better big farm proposition anywhere. For details write, Sawyer-Goodman Co., Marinette, Wis.

WE ANSWER QUESTIONS—If you want to know anything about Cloverland, write to John A. Doelle, Secretary—Manager Upper Peninsula Development Bureau, Marquette, Mich., an organization not organized for profit.

FOR SALE—Grazing lands in Cloverland, good soil, fine water, solid groupings, near settled communities, good roads, excellent schools, shipping facilities. Prices and terms right. The Cleveland-Cliffs Iron Co., Land Dept. Negaunee, Michigan.

FEEDS OF QUALITY—Ask your dealer for "The Albert Dickinson Company" brands of grain and field seeds, poultry and stock feeds.

FOR SALE—Upper Peninsula cut-over lands suitable for grazing or general farming in Alger, Chippewa, Gogebic, Luce, Mackinac and Schoolcraft counties. For information write, Land Department, Charcoal Iron Company of America, Marquette, Michigan.

FOR SALE—37 acre farms of good land, 10 acres cleared, house, barn, team of horses, two cows, chickens, implements; small cash payment and 15 years to pay balance. A chance for the man of small means to get a start in farming and own his own farm. Northern Michigan Land Co., Grain Exchange building, St. Paul, Minn., or 309 Caswell block, Milwaukee, Wis.

RELIABLE INFORMATION on prices, terms, and condition of cut-over land in Northeastern Minnesota; grazing tracts range from one section up 100,000 acres; free grazing option-leases, all handled through the Commercial Club of Duluth without profit. Our object is to offer every inducement for live stock men to use our idle lands. For details and information address, W. I. Prince, Secretary Commercial Club, Duluth, Minn.

CHIPPewa COUNTY—The county of 1,000,000 acres, the granary of the Upper Peninsula of Michigan, invites inspection by grazers, settlers and home seekers. Address, Charles E. Chipley, Secretary Civic & Commercial Association, Sault Ste. Marie, Mich.

FOR SALE—250,000 acres of unimproved cut-over lands in tracts to suit purchaser. Prices \$5 to \$15 an acre, terms reasonable. Address J. M. Longyear, Marquette, Mich.

FOR SALE—We own grazing lands in the great open areas of Cloverland, where natural grass settings are found. We can offer you any size tract desirable. Write for full particulars. Baldwin Corporation, Appleton, Wis.

FOR SALE—235,000 acres cut-over land in Northern Michigan and Northern Wisconsin on exceptionally favorable and easy terms. Tracts of all sizes. Bay de Noquet Co., Nahma, Mich., or Oconto Lumber Co., Oconto, Wis.



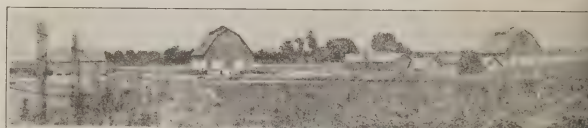
Du Pont Exhibit of Explosives

WHEN the officers of the Northern Minnesota Development Association planned their potato show at Duluth in November, the Du Pont Company were asked to put on an exhibit. The reason for this was the fact that land clearing is considered one of the most, if not the most, important factor in the development of Cloverland cut-over lands. Explosives are considered to be absolutely essential in this work.

On account of the nature of explosives it was, of course, impossible to

use anything but a dummy exhibit of the various grades. However, educational pictures were shown in an electric card machine. Among products of the company on exhibition were artificial leather, paints of all sorts and pyralin collars.

Experts were present and explained the best methods of land clearing to all interested parties. At the evening meeting the Du Pont land clearing film was run before a large crowd. This film may be obtained free of charge for showing by any county agent or agricultural association.



This 1600-acre farm is sold

Come to Menominee County Now and See a Real Cloverland

The corn belt farmers have purchased scores of farms in Menominee County this season.

We still have improved farms of all sizes and prices and also 100,000 acres of stock and grazing land.

Send us your name for free Cloverland books and farm lists.

Menominee County has the shortest haul to market, the longest growing season, the lightest snow fall, the largest number of farms, and is the most southern point and gateway to Cloverland.

SALES DEPARTMENT

MENOMINEE ABSTRACT & LAND COMPANY
MENOMINEE, MICHIGAN, BOX 64

This 520-acre farm is sold



Think About Fence Posts Now!

THIS is the time when farmers plan the year's work—changes they are going to make—improved methods they are going to adopt. Just the time to stop and think about fence posts.

It used to be wood posts—now RED TOP Steel Posts are the standard. There must be good reasons why thousands of farmers have adopted RED TOPS. There are.

They have taken the drudgery out of fence building. They make a strong, durable, clean fence line.

RED TOPS are easily and quickly set—drive like a stake. They hold their place—anchor like a rock. No bending, buckling, breaking, burning or rotting; a *minimum* of upkeep. They protect the stock from lightning.

And RED TOPS actually cost less in place than wood or concrete posts.

Send for booklet today, giving the whole story on Red Top Posts.

If at any time your dealer cannot supply you with RED TOPS, write direct to us.

Chicago Steel Post Company

208- w South La Salle Street - Chicago, Illinois
Canadian Factory: Preston, Ontario, Canada

You take no chance. Any RED TOP post that breaks in the fence line will be replaced by your dealer without cost or argument. It is worth remembering that RED TOP is the only guaranteed fence post.



Red Top

GUARANTEED

Steel Fence Posts

Roasted and Packed by

THE MICHIGAN
COFFEE & SPICE
COMPANY

Menominee, Michigan

Roasted and Packed by

THE MICHIGAN
COFFEE & SPICE
COMPANY

Menominee, Michigan

*The Fastest Selling Coffee
in Cloverland*



Exclusive Distributors

CARPENTER COOK COMPANY
MENOMINEE and ISHPERING, MICHIGAN

Roasted and Packed by

THE MICHIGAN
COFFEE & SPICE
COMPANY

Menominee, Michigan

Roasted and Packed by

THE MICHIGAN
COFFEE & SPICE
COMPANY

Menominee, Michigan

COVERLAND

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Copy

MAGAZINE

February, 1920

In This Issue:

IF I WERE A FARM BOY

For Farm Boys and Farm Parents

DAIRY COW-SENSE

By PROF. P. G. HOLDEN

"For East is East and West is West"

By F. W. LUENING

SOY BEANS for LIGHT SOILS

By GEORGE BRIGGS

and Twenty Other Articles

"The North Wind's Malice"

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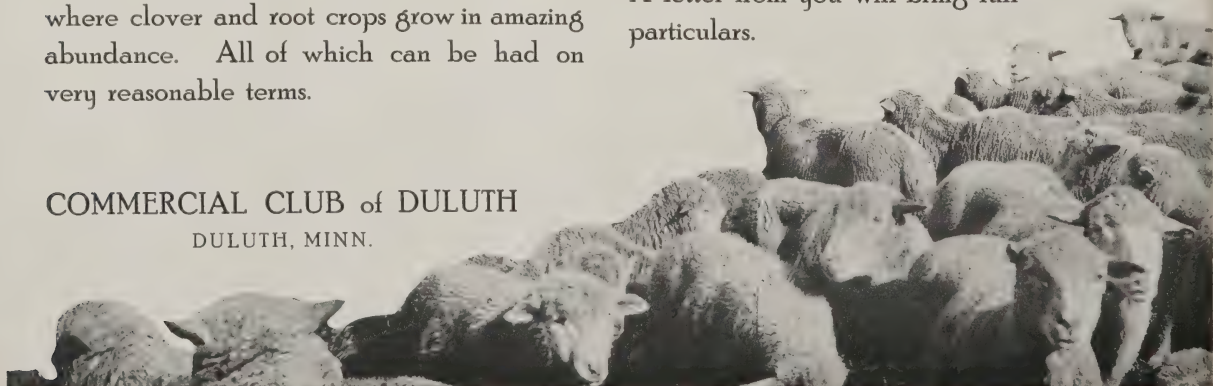
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COVERLAND MAGAZINE

REGISTRATION OF TITLE APPLIED FOR TO U. S. PATENT OFFICE

Published Every Month at Menominee, Michigan

VOL. XIII No. 2

MENOMINEE, MICHIGAN, FEBRUARY, 1920

\$1.00 A YEAR, 10¢ THE COPY

IF I WERE A FARM BOY

IF I WERE a farm boy, and my father worked dully all day long, rarely talking to me; and if my mother toiled silently over dishes and milk cans; and if at meals there were no conversation; and at dusk my mother and father dropped wearily into bed—I would dream of the city.

I would want to get away. That would be the only solution I knew. My active, boy-imagination would paint pictures,—bright lights, broad streets, great factories, big machines. I would see myself among men who smiled often, and who were never lonely.

I could not know the misery behind the lights; nor the crimes that men commit, nor that, in the factories, is strife. Nor could I know that men who lead are hated, and men who follow, hate.

If I were a farm boy, and I trudged off to our schoolhouse; and if I were awkward and bashful, because folks never came to my house; and if the town-boys sneered, and the town-girls giggled—I would dream of the city.

My active boy-mind, rebuffed by the boys and girls about me, would take me far away. It would soothe the string of mockery with dreams; and perhaps a dull, gnawing anger would enter my soul.

And so,—at home a place of taciturn toil; at school the butt of jeers from brighter boys—the bitterness in my soul would feed its gall to all my character. I would leave the farm. I would go to the city.

There I would find companions. Among them would be many, embittered and sullen like myself. I would drift, not into the better channels of city life, but rather into things that gave me pleasure and companionship. And these would lead me swiftly down, into the lower stratas, where the beginnings of crime are spawned. But I would have companions! There would be young men to replace the boys of my lost childhood; and there would be women,—painted, and perfumed and alluring—to fill the place that school-girl friends had failed to fill. With these I would travel, for friendship's sake, 'till the criminal courts brought loneliness back into my life.

But if I were a farm boy, and dad called me, with gruff good cheer for the morning chores; and if, while we worked together in the barn, he told me how, on an island called Jersey, far out across the Atlantic, the villagers changed just ordinary cows, to cows that give the richest milk the world has ever known; or if, when together we fed clover hay into the mangers, he told me how little plants grow on the roots of the clover; how they catch the air that comes down, through the soil, take from it an element called

nitrogen, and give this nitrogen back to the soil, to help the clover grow; or if he told how the birds move across the earth, acting as nature's police-force, guarding against the crimes committed by insects upon growing things; descending suddenly in flocks, upon an orchard, and destroying thousands of insect-eggs and larva that no spray could ever reach—I wouldn't have time to dream of the city.

And if mother, instead of toiling hopelessly, just worked in a happy, normal way; and if, sometimes, there were the odor of pies and bread in the kitchen; and if she cheerily talked over with me the hundred things a boy's mind will suggest—then I would not dream of the city.

If the neighbors came often to see us, and there'd be folks, sometimes, 'round the table; if my boy-friends liked to come to the farm, because they like dad and mother, and because there was something about my home which, though they couldn't just understand, they liked awfully well; and if I went to school and took my place with other boys, because I knew from contact with folks at home how to meet others, without embarrassment or awkwardness; and if I played ball sometimes, or went swimming with other boys; and if, in the evening when the chores were done, dad and mother and I gathered about the coal-stove and read; and dad told me more about the farm; and perhaps mother played the piano and sang; or the neighbors came in and we all sing together; or perhaps we had a phonograph; or we'd go out into the kitchen and pop corn over the fire and make pop-corn balls, or molasses taffy; or maybe we'd go to the rural schoolhouse, and have a dance there, or a meeting; and all the neighbors would be there, and dad would know most of them and would help them all be friendly and at ease—I wouldn't want to dream of the city.

My boy-imagination would take me to the far away island of Jersey. I would dream about even better cows, that I would develop, when I grew up. Or I would think of the plants that grow on clover roots, and of men like Burbank, and of days to come when I would grow even better plants and finer yields of grain or fruit. I would think of the passage of birds, from tropical jungles to the frost-touched pines of Canada; and I would build houses for the bluebirds and wrens that I knew would come to my farm in spring.

No, I would be too busy to dream of the city. The cheer of my home would go down deep in my soul; and a character would grow there—sound and clean and wholesome—like flowers in the sunlight.

And so I would stay on the farm—if I were a farm boy.



CLOVERLAND MAGAZINE

DAIRY COW-SENSE

By PROF. P. G. HOLDEN



Alini, Indian Name for "Pretty Eyes," a Type of Cow It Pays to Keep

A MAN FEELS independent when he knows his income is steady. The dairy business is a cash business.

Dairying builds up the farm. It requires fewer acres to produce a good living on a dairy farm than on a grain farm, and consequently leads to closer neighbors and more thickly settled communities.

The poor dairy cow cuts down the profit. She takes time, labor, feed, and care. Know your cow. The good cows of the man who knows, have records, and are generally too valuable to sell. There is the man who milks cows day after day but considers it too much bother to weigh and test the milk, who needs to know something about cow values. An accurate record on every animal in the herd will solve the problem and reveal some surprising facts to every cow owner.

Here is a striking example of conditions which prevail on many farms in all sections of the country:

One average cow gave an annual profit of about \$31.25, while the profit from forty poor cows in one whole year was only \$31.00—about the same as the profit received on the one cow. The one cow is the average of the one-fourth best of 554 cows in thirty-six Illinois dairy herds, while the forty cows are the average of the one-fourth poorest of the same 554 cows in thirty-six Illinois dairy herds.

The poor cows each gave a profit of one-fourth of a cent every four days, or about seventy-seven cents per cow profit for the whole year, after deducting \$30 per year for feed. Each one of the poor cows required on an average just as much feed and care as the average good cow which gave the owner, after deducting \$38.00 per year for feed, a net profit of \$31.00 a year; or, in other words, the forty poor cows took forty times as much feed and care as the one average cow. These calculations allow the skim milk, calf, and manure to pay for the labor and interest on the investment.

The lowest 139 cows (one-fourth of all) yielded an average of 133½ pounds of butter fat during the year, and the highest 139 cows, produced an average of 301 pounds of butter fat.

The profit from the whole 139 better cows was only \$107, but the clear money from the best 139 cows amounted to more than \$4,000.

Twenty-five cows of the better kind would return the dairyman a clear profit of \$783 per year. They could be kept on an eighty acre farm; they would require a barn only 32 x 45 feet, and a hundred-ton silo; and the cows themselves, at \$70 per head, would cost only \$1,750. (The figures are based upon 1917 prices.)

The only accurate measure of a cow's production is attained by weighing and testing her milk. The most practical method is found in the

co-operative cow testing association. These associations are founded on the principle that a number of dairymen, situated near each other, can organize and employ a man to do their testing cheaper and more satisfactorily than they can do it themselves. The most convenient association to operate is one composed of twenty-six members. This number permits the tester to spend one day each month at each place without having to work Sundays or holidays.

The tester arrives at the home of the dairyman in the afternoon, weighs and takes a proportionate sample of the milk of each cow separately, and weighs the feed which she consumes. In the morning he reports these operations. These samples, from the evening and morning milkings, are put together to form composite samples which are tested for butter fat. To find the production for the month the tester multiplies the results for the day by the number of days in the month. The yearly production is the sum of twelve monthly credits.

There are some things which the dairyman who joins a test association, should remember:

First—The cows do not know they are in a testing association, and will not give more milk because of that fact alone.

Second—If your herd does poorly the first year, do not blame the association and drop out. Remember that knowledge of the producing qualities of each cow in your herd is essential if you desire to improve.

Third—A dairy cow is a factory for the production of milk, but corn fodder and timothy hay are not the proper raw materials to use.

Fourth—Alfalfa or clover hay, or ensilage, can be converted into milk by the dairy cow more easily than any other roughage except grass; therefore, we will do well to supply these feeds if possible.

Fifth—Cow's milk is about 87 per cent water. Therefore, spare no efforts in making it pleasant and convenient for them to obtain a large supply which is pure, fresh, and of the right temperature.

Sixth—A dairy cow appreciates kindness and regularity. Loud talking, cursing, and abuse should not be allowed in the dairy barn.

Seventh—A warm, well-lighted, well-ventilated barn, kept in sanitary condition, will contribute much, not only to the comfort of the cows, but to the owner as well. (Iowa Bul. No. 13.)

(Any dairyman can learn a lot about his own cows without a testing association, if he will rule off twelve sheets of paper; across the top list the names of the cows. Down the left side, number from 1 to 31. Divide each of the little squares thus formed into two parts. Procure a TESTED spring scale. Hang it up in a con-



Meadows and Fields That Make for Dairy-cow Contentment

venient place in the barn. Weigh the empty pail. Then weigh each cow's milk before emptying the pail into the can. Record the morning's milking in the upper half of the little square; the evening's milk in the lower half. The total at the end of the month will be an accurate record of the QUANTITY produced by the cow during the month. This method, insofar as the QUANTITY production is concerned, is more accurate than the association plan. The story which such a record will tell is little short of astonishing. Cows that seem to give great quantities, often prove to be comparatively poor producers, because their milk flow is not sustained through the greater part of the year. Cows that seem to be only fair, prove to give large yields because their production is constant during almost the entire year. The record will be more valuable as time passes. No cow should be judged by the production of a single month, or even several months. It requires at least a year to know your cow.—The Editors).

A silo should be part of the permanent improvement on every farm. United States Farm Bulletin 556 furnishes twelve good reasons why every farmer should have a silo:

1—More feed can be stored in the form of silage than in the form of fodder or hay.

2—There is a smaller loss of food material when a crop is made into silage than when cured as fodder or hay.

3—Corn silage is a better feed than corn fodder.

4—An acre of corn can be placed in the silo at less cost than the same area can be husked and shredded.

5—Crops can be put in the silo during weather that could not be utilized in making hay or curing fodder.

6—More stock can be kept on a given area of land when silage is the basis of the ration.

7—There is less waste in feeding silage than in feeding fodder. Good silage properly fed is all consumed.

8—Silage is very palatable.

9—Silage, like other succulent feeds,

has a beneficial effect upon the digestive organs.

10—Silage is the cheapest and best form in which a succulent feed can be provided for winter use.

11—Silage can be used for supplementing pasture more economically than can soiling crops, because it requires less labor and silage is more palatable.

12—Converting the corn crop into silage cleans the land and leaves it ready for another crop.

(Corn has for years been considered the standard silage crop. Recently, dairy farmers have suggested silage made of clover, packed into the silo to the depth of about two feet, upon which is packed oat or rye straw, to a similar depth. The silo is thus filled with alternate layers of clover and straw. It is claimed that the straw absorbs the excess moisture from the clover. In the northern half of the states of Michigan, Minnesota, and Wisconsin, a few men have put up root crops in this form. These methods may prove very satisfactory, but it should be remembered that they have not yet been fully tried out. Before the dairyman attempts to change from corn to other crops for silo filling, he ought to consult his agricultural college or experiment station.)

With few exceptions, any dairy farm located within the Central West will produce all the roughage and the greater part of the concentrates needed for the dairy herd. Corn sorghum furnish both concentrates and roughage. Alfalfa and red clover furnish protein feeds. Silage, stock-beets, turnips, sorghums, etc., are excellent succulent feeds.

The balanced ration is very much misunderstood. Many farmers imagine that it is something new-fangled and impractical. This is not true. A balanced ration is simply a ration in which the nutrients contained are in the right quantity and proportion, to secure the largest quantity of the best milk at the least cost.

In making up rations for dairy cows, those feeds which are grown on the farm should be used as extensively as

(Continued on page 29)

CLOVERLAND MAGAZINE

SHEEP ON THE SHARE PLAN

By LEO M. GEISMAR

MANY of the farmers in Houghton County, better known as the "Copper Country," formerly worked in the mines, and after saving up a few hundred dollars bought some cut-over land which they gradually developed into farms. Some of the miners worked alternately in the mines in the winter and on their farms in the summer, the mining companies as a rule encouraging their employees to buy land and build farm homes. Others quit the mines entirely as their farms advanced, in order to give agriculture their full time.

This routine development continued until the war, and it was then that the Houghton Live Stock Association came into existence as a war measure. There had been ready and quick response for increased food production, and the mining companies gave free use of large tracts of lands which they fenced, plowed, harrowed and prepared for crops. The wheat crop was increased 400 per cent and a surplus of 20,000 bushels of potatoes were shipped out of the county, the entire local demand having been supplied by home production. But the farmers did not have money to invest in sheep, the objective of the Houghton County Live Stock Association. Leading business men subscribed funds and when the association was ready to place the sheep on the share plan, it was discovered that more farmers wanted sheep than the association could finance. A few offered to pay cash, some were willing to give notes payable in six and twenty-four months, while others were willing to engage in the new industry on the shares.

All of the sheep on shares were placed with the farmers who had formerly worked in the mines. Originally these men came from Northern Europe where they had handled a few sheep, using methods generally unknown in American sheep husbandry, such as shearing sheep two or three times a year, breeding without regard to the time when lambs would be dropped, cutting brush during the forepart of the summer and storing it for winter feed and carding and spinning the wool and knitting it into various garments. No attempt was made to "educate" these farmers in American methods. It was deemed more advisable to remember that education is the summed up experience of great numbers and that even he who knows it all may still be young enough to learn from others, and often from those he least expects it. Nor was there any provision inserted in the contracts to guard against the dog nuisance, even though it is well known that a poor man keeps one dog, a very

The Houghton County Live Stock Association came into existence as a war measure. Food production at that time was being increased beyond anyone's expectation, the women of the county doing far more than "their bit." The wheat crop was increased by more than 400 per cent and the mining companies led the way by giving free use of vast tracts of land which they first fenced, plowed and harrowed, thus helping to increase a potato crop which for the first time in the history of the county was not only sufficient for local needs but left a surplus of over 20,000 bushels which were shipped out. When first approached with the suggestion that mutton and wool being important war necessities, sheep might prove a good investment when furnished to farmers who were financially unable to secure them, one of the leading business men answered "Never mind the investment, put me down for a couple of hundred dollars and if I never see it again it will have been worth far more than that if it helped to provide extra meals and blankets for the boys over there." This spirit prevailed to a large extent until after the Live Stock Association was organized and when the number of needy farmers proved to be greater than anticipated, the First National Bank of Hancock offered to supply the necessary funds to all farmers who were willing to buy the sheep on time.

Sheep were therefore supplied to all farmers who could be induced to keep some and among these were a few who offered to pay cash, while quite a number accepted the offer to give notes payable in from six to twenty-four months. Those who preferred taking the sheep on shares from the Live Stock Association entered into a contract which has unique features from an economical standpoint and is calculated to provide a stimulant for better co-operation and for the general improvement of live stock.

poor man keeps two dogs and a damn poor man keeps three dogs. Care was taken however, to place the sheep only with those who would agree to fence off with woven wire five to ten acres of cut-over land for sheep pasture and as most of them were unable to pay cash for the fencing, arrangements were made with one of the local hardware firms to sell it to them on time. The object in placing these sheep on cut-over land pastures of partly developed farms was to enable the farmers to find out that sheep will do most of the land clearing and pay for doing the work.

The best high-grade yearling ewes obtainable were secured and placed on these farms early in the spring, while during late fall pure bred rams of the same breed were furnished at the rate of one for every fifteen to twenty ewes, the several groups of farmers agreeing among themselves as to who would take care of the rams, the others paying the custodians a fee sufficient to pay for the feed and care. The contract specifies that the rams are to be exchanged each year among the several groups of farmers in order to prevent inbreeding, and as the contract runs for five years, one of its clauses provides for the castrating of all ram lambs during the first four years, thus enabling the farmers to raise practically pure bred rams during the fifth year. These clauses should enable the farmers to appreciate that co-operation is the keystone of successful farming; that inbreeding is to be avoided; that one bred within a community is more profitable than several, and that pure bred stock held co-operatively is cheaper than scrubs

kept individually.

The contract provides that sheep not properly cared for may be taken away without giving previous notice and the farmer held for damages equal to the difference between the original value and the appraised value when taken away. Being a case of learning as much as one of educating, this was considered more advisable than attempt to condemn old-world practices in shearing oftener than once a year, breeding at any time or using brush as winter feed. Whether these practices are to be condemned is still an open question, judging from results obtained up to the present time.

The sheep have passed through one winter and came out in fair to excellent condition, while the ewes had their first lambs last spring. Sheep sheared twice a year yielded an average of ten pounds per fleece, while those sheared once yielded an average of eight and one-half pounds. As all of the wool was used locally, the actual market value of the shorter wool could not be ascertained, nor whether it had a sufficiently lower value to offset the one and a half pounds extra yield and the additional labor in the shearing.

Brush cut by several of the farmers while clearing land during the forepart of the summer and cured in small bundles for winter feed was relished by the sheep in all cases. When given to them while being fed on mixed hay, the sheep invariably left the hay and began eating the brush.

Sheep sheared once a year gave a lamb crop averaging 85 per cent while those sheared twice averaged 43.6 per cent. This great difference would

condemn the practise of frequent shearing, were it not that the highest percentage, or 133 per cent was obtained by one farmer whose ewes were sheared twice and dropped their lambs in February. In a larger flock not kept on shares and handled in a like manner the increase was 83 per cent, the lambs being dropped in January and February.

The amount of brush destroyed by the sheep on the fenced areas of cut-over land after the two seasons of pasturing, varies according to the original condition of the areas. The largest amount was destroyed where the brush was low enough to enable the sheep to reach the tops, and the least amount where the brush consisted mostly of tall saplings. Where the fenced areas consisted of brush and stump and, less brush was destroyed, the sheep during the latter part of the season preferring the clover and grass growing among the stumps, but giving preference to brush during the forepart of the season. At a very conservative valuation, the saving in the cost of clearing the land on the fenced areas used for sheep pasture during the two seasons, represents an average of \$2.50 per acre, when comparing these areas with adjoining unfenced brush land.

As previously stated, the contract provides for keeping the sheep five years, after which they, or an equal number, are to be returned to the Live Stock Association, the farmer meanwhile turning over one-half of the wool and one-half of the lambs to the Association. In order to give an inducement to the farmers to retain all of the wool and the lambs, they are given an option to pay cash based on prices which are calculated to be below actual market values. Thus with a market value of 65 to 72 cents a pound for wool last year, and 55 to 60 cents this year, the price agreed upon is 50 cents, then 40 cents during the third year; 35 cents during the fourth and 30 cents during the fifth year. Likewise, the price of lambs, when ready for market during late fall, ranges from \$10 the first year down to \$6 during the fifth year. While the ewes cost \$18.50 and the rams \$38.50, the farmers are also given the option to keep them at the end of the fifth year by paying \$10 a head for them.

Since placed on shares, some of the sheep have been sold by the Association on account of having been returned by farmers who sold out and by others who wished to reduce the size of their flocks. These sales, of course, count in a great measure for the 40 per cent dividend to the stockholders this year.



CLOVERLAND MAGAZINE

SOY BEANS FOR LIGHT SOILS

By GEORGE BRIGGS
College of Agriculture, University of Wisconsin

"IF YOU would visit the Farmers' Club of Ekdall, a small rural community in Burnett County, you would be greeted by their accustomed password: 'Soy Beans, Sir.'"

"Their regular monthly program is always given on the first Saturday evening of each month, and seldom is a program complete without some mention made of the soy bean crop. The soy bean is of such importance because the soil is light, similar to thousands of acres in other parts of Wisconsin; clover has often been a failure and the farmers have been up against it when it came to providing leguminous hays for their stock."

"Through the advice of the Experiment Station, ten years ago one of the farmers started to raise soy beans. He was jeered at by his fellow farmers, nevertheless he stuck by them through failure and success."

"As a result of this man's determination, the whole neighborhood finally could see soy beans as he did. Now every farmer in the community raised soy beans. They are raised for hay, silage, seed, and green manure. Succeeding crops are responding so wonderfully from the increased nitrogen added to the soil, that there is no question as to the permanency of this soy bean industry in this neighborhood."

"Many other communities in Wisconsin are figuring on the soy bean as a major crop. This past year, over the whole state there were 3,500 to 4,000 acres planted as seed, but the acres planted for silage with corn goes up above the 50,000 mark. One county alone reported from 12,000 to 15,000 acres with corn. Our best evidence that soy beans are here to stay comes from the farmer himself."

"Favorable testimonials on the use of soy beans have been received from farmers living in a majority of counties in the state. Only one grower, who lives within twenty miles of Lake Superior, reports unfavorable results. While the soy bean crop is recommended for the light soil farmer, yet testimonials such as these have been received from farmers living on heavy soils:

"'Wouldn't plant an acre of corn without it.'"

"'Increases instead of hinders the growth of corn,' and"

"'As my neighbors became more acquainted with their soy bean crop their 'pep' increases.'"

"I recall hearing my father relate

Minnesota's corn history to me, and that in the early days Indian or Squaw corn was the only variety that people thought could be raised. As years went by and people became better acquainted with the culture of corn, larger and better varieties came in, until now in extreme Northern Minnesota we find good fields of early corn."

"I believe the soy bean industry in Wisconsin is comparable to the Minnesota and Wisconsin corn history. We are living in the development stage of the soy bean industry and with its wonderful ability to grow on poor types of soil, with its great number of uses, and with the popular demand for it on all types of soil, there is no question but that it is a crop which will rank with the leading ones in Wisconsin. It is the alfalfa for light soil farmers, by its use the thousands of acres of light soil can be made more productive, thereby putting their owner on a more substantial footing, better to compete with the heavy soil farmer."

The above statement by Mr. Briggs, is the result of intensive study of the soy bean. Mr. Briggs' conclusions are supported by R. N. Kebler, who says that the Wisconsin Black Wax Soy Bean, inoculated with Soy Bean culture before planting, proved a successful addition to farm crops. Experiments with the Wilson Five, The Black Eyebrow, the Ito San, the Manchuria, and the Wisconsin Black Wax, proved the latter the earliest maturing, followed a week later by the Ito San and the Wilson Five. For northern counties, Mr. Kebler believes the Wisconsin Black Wax best suited."

The beans have proven exceptionally valuable on light sandy soils. On such soils they came through the ground very promptly and at least five or six days earlier than on heavy soils. The plants seem to grow well on clay-loam, and perhaps quite as well as on light soil, although they were a little later in starting. Soy beans are grown largely with corn. Under such cultivation the bean becomes a little taller and more leafy, using the corn as a support and making an upright growth."

In harvesting, the beans are pulled or cut with a corn knife, tied in small bundles and set up in shocks. They

are turned twice before they are hauled. They may, of course, be cured as hay, but a loss of leaves is likely to result."

Experiments with a corn-soy bean silage have indicated success. The bean also, when cut in the hay stage, has been chopped or ground to a meal. The meal is relished by dairy cattle, and seems to have a favorable effect upon the milk flow, even when substituted for alfalfa. The bean appears to give its best results when treated as a hay ration. It can be fed with clover or alfalfa, and in about equal proportions. The soy bean hay is a little higher in protein and fat contents than alfalfa."

The soy bean, like all leguminous crops, needs inoculated soil, or better still, inoculation through the seeds. This latter form of inoculation is proving eminently successful, and may take the place of other forms in many cases."

The detail of the experiment conducted by Mr. Kebler follows:

A small patch of Wisconsin Black Wax Soy Beans was planted on the school farm. The seed was inoculated with soy beans culture before planting and a fine, mature crop of the beans was harvested. All results seemed to indicate a successful introduction of this plant into the rotation of some of the farms of Cloverland, but before recommending it, more experiments were thought advisable, so the school obtained several varieties of the bean in the hope of getting a variety even better adapted to the conditions here. The five varieties tested were the Wilson Five, Black Eyebrow, Ito San, Manchuria, and Wisconsin Black Wax."

These five varieties were all planted on May 28th in a well prepared seed bed, following a grain crop in the rotation. They were drilled in rows twenty-four inches apart at the rate of about four pecks to the acre. Half of each plot was inoculated. In the case of the Wisconsin Black Wax, a small plot was planted, the same as in the case of the other four varieties, but in addition to this a patch of about one-half acre was planted on a piece of land where the quack grass had been partially subdued. All of these plots were on light sandy soil. In addition to this, some of the Wisconsin

Black Wax was seeded with the corn for silage purposes on clay loam soil. This was also done with some of the Black Eyebrow and Ito San."

The beans were cultivated the first time as soon as they appeared through the ground in the sandy plots, but blind cultivation was necessary in the case of the clay loam soils, as there was a difference of at least five or six days in date of appearance. The greater part of the cultivation was done while the beans were young. As the beans were in the same field as the corn, they were cultivated about as often."

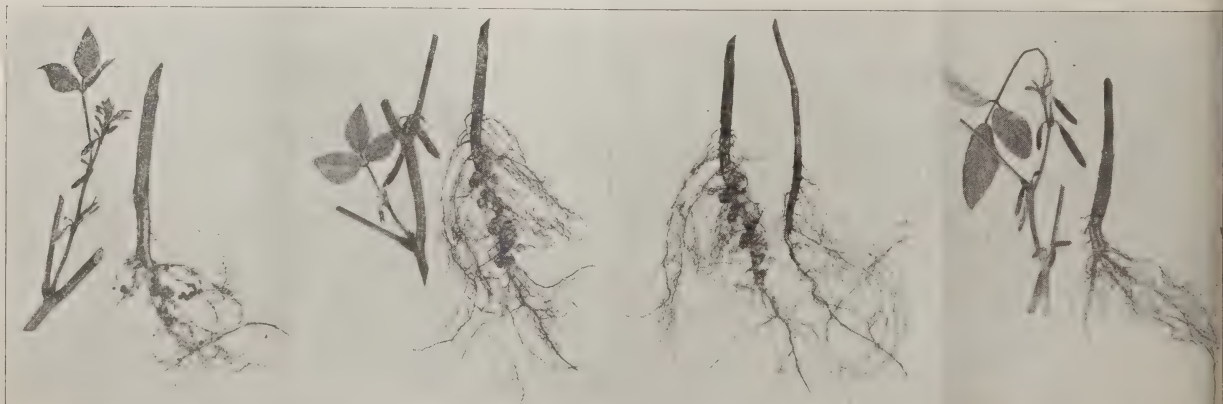
The beans were all harvested on September 15th. Some were pulled, others cut with the corn knife, but all were tied in small bundles and set up in shocks. They were turned twice before being hauled. Curing the beans similar to hay was tried last year, resulting in the loss of a large amount of leaves."

The above experiments with the beans leads to the following conclusions. The Manchuria is out of the question, as it had not set pods at the time of the harvest. The Wisconsin Black Wax matured the earliest, followed a week later by the Ito San and Wilson Five. A slight variation is due to the fact that the Ito San and Wilson Five were not acclimated. The Black Eyebrow was about two-thirds mature at harvest time and is considered the best of the five for silage and hay on account of its large size, abundance of large leaves, date of maturity, and the fact that it bears its pods well up on the stalk. This high-beaning habit makes it possible to cut the corn with the corn binder without the loss of as many pods as would be the case with the earlier maturing varieties. It also holds its leaves well in curing, a fact which should make it one of the best to be cut for hay."

The inoculated beans seemed to do the best for the first two or three weeks, but after that there was not much difference as to size, color and general appearance. The nodules on the roots were much more developed on the inoculated plants, however."

Counties further north than Menominee would likely find the Wisconsin Black Wax better fitted for hay or silage because of its early maturity. In planting for silage, however, many of the pods will be lost, on account of its low-bearing habit."

RESULTS WITH INOCULATED AND UNINOCULATED SEEDS;



In Every Case the Nodules, on Inoculated Plant Roots, Are Clearly Distinguishable;

CLOVERLAND MAGAZINE

SEED INOCULATION

The Barlow Experiments

SEED INOCULATION is no longer new. The method is, tried and proven. It is, perhaps, not fully understood.

Stripped of technical phraseology, it consists of treating seeds with a bacterial culture. Formerly we thought this culture must be incorporated in the soil itself. At first we went out with a wagon and tried to find a piece of soil already inoculated. This we scattered upon our fields and then we planted our seeds.

Agricultural bacteriologists have reversed the procedure. They treat the seed itself with the culture, and then do their planting. They get direct application. They take no chances on the plant root finding the culture, or vice versa. They bring the two together at the very inception of real plant life.

In the laboratories of one of Chicago's greatest seed houses, Professor Barlow has conducted a series of experiments. Albert Dickinson, president of the company bearing his name made the work possible. For scientific reasons these experiments ought to be carefully explained. For practical purposes, however, a layman's resume is perhaps sufficient.

The cultures were grown in the laboratories. Various seeds were treated and others of the same type remained untreated. Specific cultural strains were used, since the soy bean, for instance, is host for a strain that differs from the cowpea or clover.

Both treated and untreated seeds were then planted, each in separate rows. All of these plantings were repeated in duplicate on another farm. In every instance, the results were the same: The inoculated seeds produced thrifty dark green plants; the uninoculated seeds produced appreciably weaker plants, and in some cases exceedingly poor results.

Naturally the results were particularly striking on impoverished soils. Where a nitrogen deficiency alone existed, the treated plants grew to a sturdy maturity. The untreated failed to produce a crop. In an almost sterile sand the treated plants continued to thrive until they died from general starvation. Nitrogen was, of course, supplied them through the nodules on their roots; other elements were lacking in the sand and they finally showed the effect. The un-

treated plants failed to make even a struggling growth. The sand gave them little or no plant nutrient and without nitrogen-supplying nodules the odds against them were too great.

On a prairie soil, where nitrogen was the known missing element, the treated plants succeeded without interruption, while the untreated were largely a failure.

The seed inoculation, as practiced in these experiments, was based upon mother culture, isolated by Professor Barlow, and preserved by him for about seven years. Culture for commercial use is developed from these mother cultures. The strains are carefully preserved on agar-agar. They seem to keep for considerable periods of time, since Professor Barlow has secured uniformly good results with growths more than a year old. Such cultures, however, are not distributed by the better seed houses. A less old, and therefore virile inoculation is always safest.

Cultures of this kind can be bought in convenient form at an almost nominal sum. For 25 or 50 cents all that is needed, can be purchased from such seed houses as carry the material. The seed treatment is an extremely simple one, and literature explaining it has been prepared. It would seem that inoculation by means of seeds, will entirely supplant the older methods of soil treatment. It offers greater certainty, less labor, and more uniform results.

One of the clearest explanations of nodules, well worth careful reading, is offered by the research department of the International Harvester Company: Nodules, as the term is used in agriculture, are tiny, knotty-looking lumps attached to the root hairs of some plants.

The nodules are the home of bacteria. Different kinds of bacteria live on different legumes but all of them do the same work.

Nodules are not found on the roots of corn, nor wheat, nor oats, nor on timothy, nor cabbages. They are likely to be found attached to the root hairs of any healthy, vigorous-looking legume. A legume is a pod-bearing plant.

Alfalfa, all of the clovers, vetches, beans, and peas, and hibiscus, locust, and catalpa trees, are common examples of leguminous plants.

Sweet clover is especially likely to

A SEED WARNING

This is the season for seed buying.

It therefore is a season of danger. Men have sown acres of quack grass, or have faced the worst kind of crop failures, because they failed to select good seed.

There is but one way to avoid these costly mistakes.

Buy your seeds from well established seedsmen. The reputable dealers, having established businesses, definitely located in fixed places, and who are not afraid to advertise their goods themselves, and their business addresses, are the ones to patronize.

Buy from them—or from someone you know personally. Don't buy "blind," from strangers, or from unknown and questionable seed houses.

Standard seeds from standard houses are not cheap. A stranger may tempt you by offering something "just as good" for less money. But, assume that you save a few dollars—or even many dollars; and assume that you plant what you get, and then watch a fine field grow up to a mixture of grain and weeds. Or suppose that you seed a meadow, only to find a terrific growth of quack grass where you expected something choice.

These are not exaggerated cases. Most of us are not seed experts. We may be able to pick good corn, but it does not follow that we can pick clean clover seed or some of the other small varieties. We cannot even be sure of seed corn, unless we know a little about its history. There are many ways in which the unscrupulous salesman can defy even sound knowledge.

The safest course is through the established dealer.

have a great many nodules on its roots.

Perhaps you have seen nodules on the roots of clover, and thought they were worm's eggs, or a growth caused by disease.

They are not a disease, but the homes of the organisms.

Sometimes you will find no nodules on the roots of one plant, and will find them on the roots of another plant growing right beside the first one.

In such cases the plant with nodules on is likely to be a better color and a much more vigorous looking plant than the other one.

Nodules are not found in hard, baked soils. Clay, for example, often packs solidly together until it is necessary to add some humus or lime to it, when it may become a good home for bacteria.

Nodules are most numerous in the spring, and on young plants just starting to grow, and where the ground is rich, sweet, and moist, but not wet.

Nitrogen is one of the most important and most costly elements in plant food.

When we buy fertilizer, we pay a high price for the nitrogen in it.

Nitrogen forms four-fifths (by volume) of the air around us, but we have not yet learned to collect this nitrogen so that it can be used commercially.

Some forms of bacteria collect nitrogen from air.

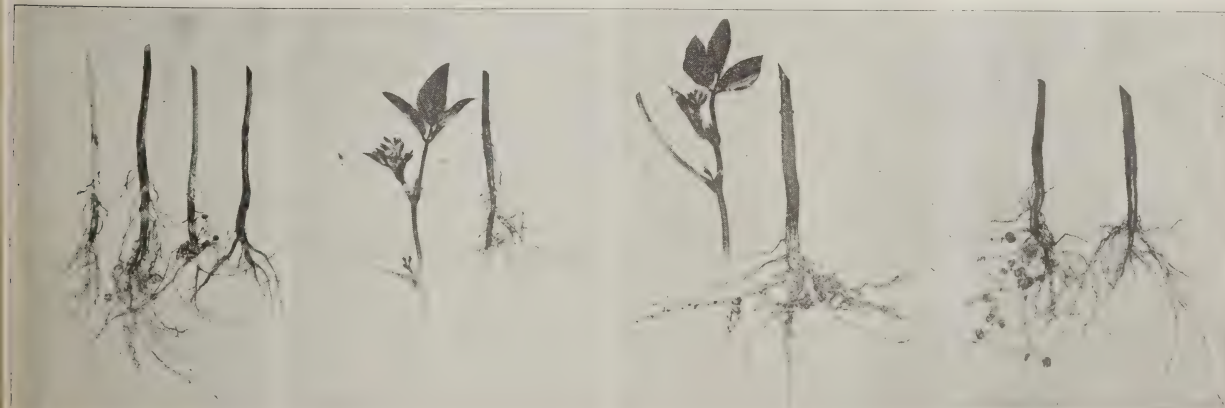
To make a good home for plants, soil should be loose and porous, with plenty of air space.

It is from this air in the soil that the bacteria gather the nitrogen.

Alfalfa, sweet clover, and bur clover have the same kind of bacteria on their roots. Crimson, red, white alsike, and California clovers all have the same kind of bacteria, but it is a different kind from that which is on alfalfa.

Cowpeas have another kind of bacteria, soy beans still another kind, peanuts another kind. Garden peas, Canadian field peas, and most of the vetches all have the same kind of bacteria—a still different kind from any of those mentioned before.

—IMPROVED PLANT GROWTH FOLLOWED THESE EXPERIMENTS



Uninoculated Seeds Resulted in Few or No Nodules and in a Low Crop Yield

CLOVERLAND MAGAZINE

"FOR EAST IS EAST AND WEST IS WEST—"



To Eastern Eyes It Seemed a Miracle That Cattle Could Exist on Ranges as Burned and Seared as These

JOHN AISLES, New York City, got his first glimpse of the West at Rifle, Col.

He traveled, by stage, through Meeker, and forty miles beyond, to the Big Bear River country.

There, near the ranch house, an irrigation ditch wound among the boulders. Under its influence a field of alfalfa waved green.

"Do you realize," said his western brother, "that this land is worth \$200 an acre?"

The easterner's gaze followed the field, to the dull-brown range; on and up to the tumbled rocks and foothills; and into the grim brown mountains beyond. Then he said:

"Yes,—but where the hell is your acre?"

He expressed the viewpoint of the East. Men who have lived among the green of York state's vegetation cannot understand the great West.

From Helena, Montana, we traveled by auto into the hills. Our driver was a westerner. We commented on the burned desolation of the drought-stricken ranges.

"Stranger," he said, "they may be burned—but I'd rather starve in a shack in Montana than live in a palace in the East."

And that is the viewpoint of the West.

So one reflects upon Kipling's lines: "For East is East and West is West, And never the twain shall meet."

The opposing views became most apparent during the summer of 1919, when the twain met.

The West suffered serious drought. Cattle and sheep found the water-holes dry. Live stock men were forced to new ranges. They went into Nebraska; they went to North and South Dakota; but the most interesting movement was that toward the cut-over lands in Minnesota, Wisconsin, and Michigan.

These lands constitute the last American frontier. There are 30,000,000 acres in the three states—cheap land, covered with luxuriant vegetation and presumably good land for grazing and agricultural purposes. It is selling for from \$5 to \$40 per acre.

The problem confronting land owners, in this basin of the Great Lakes, has been to find something big enough to fill the bigness of the country. Settlers are successful, but they use little forty, eighty, or one hundred and sixty acre tracts. It takes a lot of them to make an impression.

But here, in the needy herds of the western rancher, the owners of cut-over land saw something sizeable enough to fit into their country.

A concerted effort by them, to interest and aid westerners, was not achieved. The commercial organizations at Duluth and Milwaukee, however, and the Upper Michigan Development Bureau, acted promptly.

They selected Leo C. Harmon of Manistique, Michigan, and the writer to represent cut-over districts. We conferred with George Rommel, U. S. Bureau of Animal Industry, at St. Paul; then started for Montana and other drought-stricken areas.

The West was courteous. It faced a dangerous crisis in its first industry—live stock grazing. Its bankers undoubtedly foresaw possible jeopardy for the sheep and cattle paper they held. Yet they received us with great good will. We expressed our belief in the cut-over acreage, and urged that sheep and cattle be moved upon them. This meant jeopardizing of the future of every Montana bank. And yet these bankers arranged meetings for us. We told the story of the cut-over range to assembled stockmen, called together by the very bankers who would suffer most if these stockmen should ever move their property out of Montana. At Miles City, Billings, and Helena, the experience was repeated.

The western range at this time seemed hopeless to eastern eyes. The Miles City territory looked like a lava bed as we rode over it. Vegetation was so sparse and so sun-scorched, that in us the wonder grew that live stock could live there at all.

Out of Billings, out of Helena, out of Lewiston, and out of other cities, the aspect was the same. To us, accustomed to the greenery of Michigan, Wisconsin, and Minnesota, continued existence of cattle and sheep on these ranges seemed a miracle.

Not so to the westerner. The ranges were dry, he said, but live stock was not yet suffering seriously. As for cut-over lands—we might have vegetation, but wasn't it largely "belly-wash." Also he had heard that flies would eat the stock alive. Then, too, wolves and coyotes abounded and would clean up a flock of sheep in a night. Wasn't that so?

We didn't believe it was. There were flies, we knew, in late June and July, but to the best of our knowledge, live stock had never suffered serious setback from this cause. We had heard of wolves from men who hunted much in our North woods. Occasionally they had seen the real timber wolf deep in the forests, and far from the nearest town. But we remembered that even these hunters

By F. W. LUENING

spoke of the wolf as a rare experience. We believed,

we said, that there might be some sheep losses from wolves; but we doubted that they would be greater than these losses from the same cause in the West. As for our "belly-wash"—knew that clover grew luxuriantly, and that we were feeding our own live stock on natural grasses in our cut-over country. So we could not believe that our vegetation would fail to equal the seared remnants of western grass. The herds and flocks must be moved, we said; the cut-over ranges can hardly be worse; so why not try them?

We left Montana without definite assurance of any kind. But the month that followed brought 170,000 head of sheep and 20,000 head of cattle into Minnesota, Wisconsin, and Michigan.

Now as to the experience of these westerners in the Great Lakes Basin:

Most of the cattle and sheep, marketed in fall from this territory, were sold at a loss. Without further analysis this sounds like a bad commentary upon the cut-over country.

What were the facts? The live stock had been bought on a high spring market. It was sold on a low market. So loss occurred among cut-over herds and flocks; it also occurred among the western herds and flocks. It had nothing whatever to do with the country upon which this live stock ranged.

Some of the stock from the cut-over lands was a joke on the Chicago market. It was scrawny, showed terrific shrinkage, and dressed out at less than forty per cent. Chicago commission men were quick to pass the joke along. Their jibes have not helped the cut-over country. But what was the real history of these "off" shipments?

They included live stock that came into Minnesota, Wisconsin, and Michigan as late as September 15th. Some of it at least—not much—was unable to walk when it left the train. Sheep were actually carried to the pastures; cattle were too weak to stand up. This does not refer to the bulk of the western live stock. But there were such cases. And this stock was expected to become acclimated, accustomed to the new foliage, take on flesh, and withstand a shipment to market, all within 40 days.

It can't be done!

Western shipments into the Basin began in May and June and continued until mid-September. They should have been stopped in August. Most of them should have been made during the early summer months.

As for flies and wolves; nowhere have I found a sheep herder or cowboy, who complained of flies as a real

menace. There may be some such men. I do not claim to have personally interviewed all of them. I DID talk to many.

Nor did I hear from anyone who suffered serious loss by wolves. One man wrote me a note. He said:

"This is anything but a sheep country; too much brush, and too many flies and wolves."

I have no reason to doubt either his sincerity or his experience. He was alone, however, in his statements—at least as they came to me either verbally or in writing.

Except for the cases cited, the western live stock, pastured in the Great Lakes Basin, reached market in fair condition. It is said that the average for sheep, dressed out, was forty-two per cent. This is low. From the same statistics, however, we learn that the average for the entire United States was about forty-five per cent. This, too, is low. It may be presumed, therefore, that conditions, generally prevalent, were the cause. And it must be remembered that the live stock shipped into the Basin first got a setback on its native western range; then went through a gruelling railway trip, and was then turned loose upon a country covered with succulent vegetation, to which the animals were unaccustomed. They overcame all of these handicaps and most of them competed well with live stock finished on its accustomed home range.

There remains now the westerner's doubt in the matter of "belly-wash."

The westerner is not without reason for this doubt. The grasses of Minnesota, Michigan and Wisconsin are luxuriant; they cover the earth; but some of them certainly lack substance. It is said that one western commission, reporting back to its live stock association, said it had found, in Minnesota, nothing but strawberry vines and weeds. If this was true, there surely was a lack of substance here. Those who know Wisconsin will agree that many of her cut-over acres are covered with ferns. Probably ferns will not produce much live weight. In Michigan are other tracts overgrown with a conglomerate of wild flowers and weeds.

All of these types of vegetation may be found in the Great Lakes Basin. However, they are typical of nothing—except possibly the semi-wild state in which some of this country finds itself. I have yet to see the land in the Great Lakes Basin that will not grow grass, and mighty good grass at that.

The westerner's doubt, however, is based on something more tangible and real than any patch of strawberry vines or ferns into which some commission may have strayed. It is based

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upon a grass crop GROWN IN THE DEEP SHADE OF THE UNDER-BRUSH.

Heavy brush was the cause of the most serious mistake made in grazing cattle and sheep in the summer of 1919. Flock after flock was unloaded in the Great Lakes Basin, and driven off into a dense tangle of shrubbery. The animals were lost to view. They sought sustenance in the semi-darkness. They consumed grasses grown in deep shadows, lacking in chlorophyll and lacking in more essential elements. It was perfectly well-intentioned grass. It was grass that had started out with the highest ambitions. It was a kind of potential grass. In its roots and blades were all the essentials wherewith it might give itself strength and substance, and sound fattening qualities. But it hadn't had a chance. It had come to life in a shadowy gloom and it couldn't hope to attain any real stability until somebody cut away the canopy over its head.

Cattle and sheep, grazing in forest shadows, are out of their element. It takes the proclivities of a deer or a moose to do that.

The answer in the Great Lakes Basin is simple. Let the sun in, and you have grass; have grass, and you can graze live stock.

The experience of 1919 has conclusively demonstrated:

1. That the cut-over lands will keep live stock alive and healthy.
2. That live stock will not fatten unless it feeds on sun-cured vegetation.
3. That there is an abundance of such vegetation in the cut-over districts, but that there also is an abundance of shadow-grass.
4. That in selecting a range for IMMEDIATE use, an open range must be chosen.
5. That if permanent grazing is to be undertaken increasing clearings must be provided.

My purely personal conviction is, that the summer of 1919 also has demonstrated that western live stock will do better in the Great Lakes Basin than on a western range, if that range is starved by drought. To this I would add, however, that success will depend entirely upon early shipment. Western live stock must not be brought into the Great Lakes Basin after mid-

August. If shipped in May or June—or even in July; if placed upon high or dry ranges that are fairly open; and if marketed on something like a fair-price basis, there is no reason why the efforts should not be profitable.

It is also a fact that the live stock of 1919 came into a new country on a pioneer basis. It got all of the grief, and faced all of the hardships that always surround the pioneer. Flocks and herds that come in 1920 will get better grazing, because the range was opened by preceding flocks and herds. Grass and clover seed has been trampled into the ground, brush has been broken down to some extent; and the sun has been let in.

My advice to westerners, therefore, is that they continue to give the cut-over lands their most careful consideration. If the spring indicates short ranges in Montana, Wyoming, Utah, Idaho, and other states, live stock men should plan to move promptly and early. I do not believe they will lose a dollar if they follow this suggestion. It doesn't mean that I advocate needless moving from the West to the Basin. If the ranges promise well, and success in the West is likely, then there is no need in seeking far fields. If not, the cut-over lands constitute their one best bet.

To land owners in Minnesota, Michigan, and Wisconsin, I suggest the need for clearing up their holdings. Scientific burning, followed by men with brush hooks and axes, is necessary, if great cattle ranges are to be developed.

Finally, the Great Lakes Basin, regardless of enthusiasts to the contrary, will never be a really open-range country. Its ultimate destiny is the dairy farm. Its lands are rich, and the dairy farmer is creeping northward from the densely settled sections in the southern half of the three states, to the sparsely settled sections in the northern half. But, thousands of acres in the hilly, semi-mountainous districts, where ore is mined, and other thousands that are rocky and whose soil is not suited to intensive agriculture, may become the finest cattle or sheep ranches the nation has yet seen.

In all of this no discussion of winter feeding is attempted. That is another problem. Permanent maintenance of live stock on cut-over lands means permanent development—of pastures, of meadows, and shelter.

So westerners have gone back, dis-

heartened, and with a greater love for the great west, astray within them.

Enthusiasts in the cut-over districts have revised their emotions. They are disappointed. Among them are men who foresaw a huge influx of cattle, trailed to the new ranges by buyers of land. They foresaw quick turn-overs, and quick profits on tracts they had held for years.

In the meantime there are two groups, in the West and in the Basin, that are quietly satisfied.

They recognize certain failures; but they also see causes. In the West, they recognize that haste must be made slowly in the matter of moving live stock. So long as the western range takes care of established flocks or herds, this western group will keep them there. But this group appreciates that grasses in the cut-over regions can be made to provide nutriment; it realizes that certain upland ranges, already bathed by the sun, will offer happy havens, if drought or blizzard drives them out.

The group in the East—also having seen failures and mistakes—is quietly waiting; believing that the experiment has brought enlightenment. In its belief at least, the cut-over tracts will soon be grazing live stock. But adjacent to each such grazing area, meadows will be cleared, fields will grow forage crops and buildings will spring up—to provide permanent habitation for the live stock man, and shelter for his cattle or sheep.

These conservative groups, both in the West and in the Basin, point to certain sheep men who have operated out of Billings. Years ago these men bought small ranches in Wisconsin. Each spring they shipped small flocks from the West to these Wisconsin properties. There they grazed the stock under careful management. And there, year after year, larger numbers were fattened and finished and marketed. Year after year this Wisconsin ranch became a more necessary adjunct to the western operations; until today the Wisconsin property is, perhaps, the most important of the two.

There is, too, another type of ranch, that the conservative groups point to.

It is the ranch that has been developed by men who have never seen the West; men who have always lived in the Great Lakes Basin. These men have begun by buying partially improved farms. They have then ac-

quired miles of cut-over land, stretching between these farms. They have started their flocks or herds as "farm flocks." They also have started gangs of men through the brush—clearing, and piling, and making pastures. As these clearing gangs progressed, the flocks or herds spread out from the farms. There was never talk of "belly-wash" by these men. First, because the grass was real grass, grown in the sunlight; second, because silage and corn fodder and root crops and hay were used to supplement the grass; third, because these men have never been forced to buy in spring and sell in fall—regardless of markets. They have continued to hold and to feed their stock until marketing conditions became right.

So "the east is east, and the west is west." The twain will never meet, until farm practices on the cut-over areas, and forage practices, are merged.

But, on a 50-50 basis, they are very like to meet. And when they DO, we may yet see vindication for the enthusiast who said:

"These cut-over areas are the greatest live stock and farming country in the United States, if not in the world."

The vast cut-over area of the Great Lakes region has been aptly termed the "last frontier of America." It is the last district in this country that holds real inducements for the farmer and stockman in the way of low priced land that is fertile and which may be converted into productive fields and luxuriant meadows. It offers opportunities unexcelled to the men of small and large means, providing they are willing to follow the chronological order of development—clearing the stump land of brush so that grasses may obtain the full warmth of the sunlight and concentrate nutriment for grazing and winter feed, and while this form of pasture maintains the balance in receipts and expenditures, prepare other fields for plowing and farm crops.

Nature has endowed this "new country" with abundant resources, but there is a certain program that must be followed to convert them into wealth. He who conforms his efforts to the requirements on this program will succeed, while he who tries to force methods foreign to these natural requirements in the program of development is steering toward the shoals of failure.



—While the Westerner, Viewing the Luxurious Greenery of the Cut-over Lands, Feared It as "Belly-wash"

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THE STORE THAT MADE REEDSBURG

Judge Fairhope Loses a Hitchin' Post



The Judge, Chuckling, Clucked to the Sway-backed Horse

REEDSBURG was dead.

Even the most enthusiastic Reedsburger had ceased to deny it. Lethargy had come upon the town like a smoke pall, settling upon the streets and seeping into the stores and offices.

Judge Fairhope's sway-backed horse slumbered at the hitching post. From his office, the judge looked down upon the solitude. Across the street glittered the windows of Saunders' department store. The store wasn't bad to look at.

"A little provincial," mused the judge, "but fairly effective for a town o' thirty thousand. Somethin' wrong, though."

The judge cocked his feet on the window sill and gazed vacantly into the empty spaces before him. Then with a single motion he whirled his swivel chair, and reached for the telephone.

"I want Robert Eldred, 9768 Dearborn Street, Chicago," he said.

The judge lapsed into further meditation until the telephone bell jangled.

been any to hear they might have heard the judge's chuckles. As it was, there were none in Reedsburg to note all this; nor the lights that remained burning in the judge's office, and the restless shadow that passed, now and again, rapidly pacing across the window.

The credit manager of Saunders' department store was mildly surprised when a keen young man approached him at eighty-three on the following morning.

"My name's Eldred," he said. "Robert Eldred. I want to open an account. I refer you to Judge Fairhope or to the Fourth National Bank of Chicago. I am connected with the firm of Eldred & Hardiston, 9768 Dearborn Street. While you are looking into this, I'll go through the store. I may buy a few things and charge them. You can deliver them at Judge Fairhope's office."

The young man swung on his heel and started for the door.

"Hey! Hold on!" The credit manager adjusted his mental attitude from mild surprise to careful dignity. "Af-

ter all—ahem—we don't know; we'd like to grant you credit, of course, but —"

"I am not asking for credit; I'm asking an investigation."

"Yes, but you want to buy goods. An investigation I'll take time. Perhaps tomorrow—or the next day; then we'll know; couldn't you come back?"

Robert Eldred was not indignant. He merely smiled.

"All right," he said, "I won't need the credit. I'll buy what I want for cash. I have already learned what I wanted to know when I came into this office." And he was gone.

During the two following hours Eldred went from counter to counter in the Saunders' store. He questioned the sales people, priced the goods, and made several special requests—all with similar results. They culminated in the book department, where he selected a volume, then turned to the clerk:

"Will you lay it aside for me? I want it, and will call for it in an hour; I find that I must cash a check and I'm unknown here."

With but slight variations, the clerk repeated what others had said in answer to other special requests.

"I'm sorry, but I'm afraid we can't do it. Somebody else might come in and want this book, you know."

So Eldred, with perfect good nature, went to the department manager. The manager supported his clerk.

"The book'll probably be here when you come back," he said, "but I can't promise. It's always best to cash checks before you begin shopping, you know."

And again Eldred smiled and said something about having learned all he wanted to know.

His last purchase, for which he paid cash, included a pair of arctics, and a pair of heavy leather boots. He asked that the buckles be reset on the arctics, and that hob nails be added to the boots.

"How soon can you deliver them?" he asked.

The clerk hesitated; then guessed that they might be delivered day after tomorrow.

"But I am leaving the city tonight. Can't you hurry the work? Can't you get them to my hotel this afternoon? I will very much appreciate it."

The request resulted again in a conference with the department manager. The manager was condescending.

"These matters must take their regular course," he said. "If you are leaving today, it would have been much better to buy these things yesterday or the day before. However, I'll see what I can do."

Again Eldred merely smiled.

He did not leave town that night. He did, however, leave on an early train the next morning. He traveled north, NOT homeward, toward Chicago. Less than fifteen miles out of Reedsburg the train began to take on women passengers. These increased until, at Center Junction, every car was packed with groups of women, many of them carrying shopping bags and all of them engaged in the usual feminine shopping conversation.

Before the train pulled in at Charlton there was the bustle that presages passengers preparing to leave a train. It seemed that all of the women and most of the men were pulling suit cases from the racks, getting into their wraps, and making ready to get off at Charlton. And this proved to be the case. When Eldred followed the crowd out of the car, he counted only seven whose journey was taking them beyond the city.

"So they're shopping in Charlton," he mused. "Charlton! Smaller than Reedsburg—about twenty-five thousand, they say; and yet some of these people have traveled nearly sixty miles to get here rather than a bare fifteen miles to reach Reedsburg. Gosh—bad retailing can sure do awful things to a town!"

Eldred spent the day in Charlton. He found its streets alive with people. Its industries were thriving. Its stores were busily engaged in waiting on

(Continued on page 28)



Reedsburg was Dead

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THE NORTH WIND'S MALICE

ILLUSTRATED BY WALTER COHN



Folsom Turned His Dogs Into the Nearest Depression and Urged Them to a Run

It had snowed during the night, but toward morning it had grown cold; now the sled-runners complained and the load dragged heavily. Folsom, who had been heaving at the indie-bars all the way up the Dexter Creek hill, halted his dogs at the crest and dropped upon the sled, only too glad of a breathing spell. His forehead was wet with sweat; when it began to freeze in his eyebrows he removed his mittens and wiped away the perspiration, then watched them congeal upon his fingers. Yes, it was all of thirty feet below, and a bad morning to hit the trail, but—Folsom's face set itself—thirty feet below in the open than the frigid atmosphere of an unhappy time.

Harkness, who had led the way up the hill, plodded onward for a time before discovering that his companion had paused; then, through the ring of ice frost around his parka hood, he cried back:

"I'll hike down to the road-house and warm up."

Folsom made no answer, he did not turn his head. Taciturnity was becoming a habit with him, and already he was beginning to dislike his new partner. For that matter he disliked everybody this morning.

Below him lay the level tundra, stretching indistinguishably with the white anchorage of Behring Sea; beyond that a long black streak of open water, underscoring the sky as if to emphasize the significance of that empty horizon, a horizon which for many months would remain unsullied by smoke. To Folsom it seemed that the distant stretch of dark water was like a prison wall, barring the outside world from him and the other fools who had elected to stay inside.

"Fools? Yes; they were all fools! Folsom was a 'sour-dough.'" He had seen the pranks that Alaskan winters

play with men and women, he had watched the alteration in minds and morals

made by the Arctic isolation, and he had considered himself proof against the malice that rides the north wind—the mischief that comes with the winter nights. He had dared to put faith in his perfect happiness, thinking himself different from other men and Lois superior to other wives, wherefore he now called himself a fool!

Sprawled beside the shore, five miles away, was Nome, its ugliness of corrugated iron, rough boards, and tar paper somewhat softened by the distance. From the jumble of roofs he picked out one and centered his attention upon it. It was his roof—or had been. He wondered, with a sudden flare of wrathful indignation, if Lois would remember that fact during his absence. But he banished this evil thought. Lois had pride, there was nothing common about her; he could not believe that she would affront the proprieties. It was to spare that very pride of hers, even more than his own, that he had undertaken this adventure to the Kobuk; and now as he looked back upon Nome, he told himself that he was acting handsomely in totally eliminating himself, thus allowing her time and freedom in which to learn her heart. He hoped that before his return she would have chosen between him and the other man.

It was too cold to remain idle long. Folsom's damp body began to chill, so he spoke to his team and once more heaved upon the handle-bars.

Leaving the crest of the ridge behind, the dogs began to run; they soon brought up in a tangle at the road-house door. When Harkness did not appear in answer to his name Folsom

By REX BEACH

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entered, to find his trail-mate at the bar, glass in hand.

"Put that down!" Folsom ordered, sharply.

Harkness did precisely that, then he turned, wiping his lips with the back of his hand. He was a small, fox-faced man; with a grin he invited the new-comer to "have one."

"Don't you know better than to drink on a day like this?" the latter demanded.

"Don't worry about me. I was raised on 'hootch,'" said Harkness.

"It's bad medicine." "Bah! I'll travel further drunk than—" Harkness measured his critic with an insolent eye—"than some folks sober." He commenced to warm himself at the stove, whereupon the other cried, impatiently:

"Come along. We can't stop at every cabin."

But Harkness was in no hurry, he consumed considerable time. When he finally followed Folsom out into the air the latter, being in a peculiarly irritable mood, warned him in a voice which shook with anger:

"We're going to start with an understanding. If you take another drink during the daytime I'll leave you flat."

"Rats! How you aim to get to the Kobuk without me?" asked Harkness.

"I'll manage somehow."

The smaller man shot a startled glance at the speaker, then his insolence vanished. "All right, old top," he said, easily. "But don't cut off your nose to spite your face. Remember, I promised if you'd stick to me you'd wear gold-beaded moccasins." He set off at a trot, with the dogs following.

This fellow Harkness had come with the first snow into Nome, bearing news of a strike on the Kobuk, and despite

his braggadocio he had made rather a good impression. That luck which favors fools and fakers had guided him straight to Folsom. He had appeared at a psychological moment in the latter's affairs, two disastrous seasons having almost broken Folsom and rendered him eager to grasp at anything which promised quick returns; moreover the latter had just had a serious quarrel with his wife.

Harkness had offered a half interest in his Kobuk claims for a grubstake and a working partner, and, smarting under the unaccustomed sting of domestic infelicity, the other had accepted, feeling sure in his own mind that Lois would not let him leave her when the time came to go. But the time had come, and Lois had offered no objection. She had acted strangely, to be sure, but she had made no effort to dissuade him. It seemed as if the proposal to separate for the winter had offended rather than frightened her. Well, that was the way with women; there was no pleasing them; when you tried to do the decent thing by them they pretended to misunderstand your motives. If you paid them the compliment of utter confidence they abused it on the pretext that you didn't love them; if you allowed your jealousy to show, they were offended at your lack of trust.

So ran the husband's thoughts. He hoped that six months of widowhood would teach Lois her own mind, but it hurt to hit the trail with nothing more stimulating than a listless kiss and a chill request to write when convenient. Now that he was on his way he began to think of the pranks played by malicious nature during the long, dark nights, and to wonder if he had acted wisely in teaming up with this footless adventurer. He remembered the malice that rides the winter winds,

(Continued on page 20)

Cloverland

MAGAZINE

The Illustrated Monthly Magazine of Greater Cloverland

ROGER M. ANDREWS, President and Publisher
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F. W. LUENING, Vice President and Editor
HENRY A. PERRY, Asst. to President & Managing Editor
JAMES W. PEASLEE, Secretary and Advertising Manager
W. D. JUDAY, Contributing Editor
HARVEY C. BAKER, Contributing Editor
O. F. DEMSEY, Circulation Manager
EDWIN E. LUND, Supt. of Printing Department

THE ANDREWS PUBLICATIONS,
313, 315, 317, 319 Quimby Avenue,
Menominee, Michigan

Entered as second-class matter January 27, 1916, at the post office at Menominee, Michigan, under the Act of March 3, 1879.

Subscription price, postage paid, \$1.00 a year in advance.
Advertising rates on application.
Make all remittances to Cloverland Magazine, or to the Publisher, R. M. Andrews.

FEBRUARY, 1920

Ousting the Farmer

NOW and then we hear echoes from our cities to the effect that all big business is corrupt. We hear that men who lead, and who guide the affairs of shop and store, are parasites upon the body politic.

We hear proposals whereby leadership shall be abolished; there shall be no more property rights; and every man shall share in all that every other man may have.

Now and then a movement begins among farmers based on some such principal. If these movements ever could get beyond the hotair stage they would first of all effect the farmer himself.

For instance, there is the matter of property.

Since the first man lived in the first cave, property right has been recognized. The cave was HIS. It took a lot of hunting around among the rocks to find that cave. It took a lot of thought and ingenuity to get the dinosaur out of it. It took a lot of hard work to tidy up the place and make it a really nice, comfortable cave.

So the first man didn't intend to let the second man come along and take it away from him. He might barter for it, or trade it off for a trained mammoth or something; but he proposed to have the cave, or its equal, as a return for his effort and thought.

This idea of property right has come down through the ages. Now certain theorists, most of whom have no property of their own, would substitute a new plan for this age-tried idea. They ask the farmers to join them.

The first holder of property is the farmer. Every farmer who owns his own farm has a direct interest in the matter. If property rights were wiped out, these farm titles would go to the state. Some sort of lease would be provided and the "owner" might be permitted to stay on the farm until some political enemy got into the state legislature and wanted the place for a favorite nephew. His influence upon the new Custodian of Farm Property, would result in a courteous but emphatic request from the state to move, and do it quickly.

Of course, there would be other state farms to which the "owner" might go. There he might fix up the buildings, improve the fields, and raise crops—if he were optimistic enough to have any pep left after two or three of these state ouster proceedings.

Naturally the organizers of various "movements" do not discuss the matter in just this light. When they talk to farmers they suggest beginning at the other end—in the cities. They propose to take the factories out of the hands of their owners; the banks away from the bankers; and the retail stores away from the retailers. That sounds better to the farmer. Most of us are but remotely concerned about the other fellow's property; that's HIS lookout.

But suppose that, by means of "movements" of one sort or another, any part of this program could be carried out: why stop with the manufacturer, the banker, and the retailer?

In fact, manufacturers, bankers, and retailers are decidedly secondary in the economic scheme. The really important institution is that great factory which feeds and clothes the world—the farm.

If therefore, any group of economic star-gazers should, with the help of the farmer, actually take away the property of manufacturers and bankers, it will merely whet their appetites. Their next move will be to take away the property of the farmer himself. Then they ought to be fairly well fixed, against a comfortable old age.

Taking it by and large, the farmer's best bet is in the cards he holds. A new deal sounds fine, but usually results in a busted flush.

There are economic and political flaws in our fabric—no doubt about that. There are men in Washington, in our state capitals, and on our county boards that have no business being there. There are trusts and corporations that ought to be broken up. There are business leaders who grab rather than lead.

But a burned potato is no reason for kicking over the table and spilling the whole dinner. Sane men just feed the potato to the pigs.

Farm Isolation

A FARMER who had failed, moved to town. He got a job and his children went to school. The children were bashful. They hung their heads; couldn't look folks squarely in the eyes; couldn't "speak up."

These children didn't make friends, didn't succeed in the classroom, and didn't get much out of school. When they grew up they didn't get much out of their work. They received small jobs and small pay because they couldn't "speak up."

In fact, they never got much out of life. They lost the benefits of friendship—and that's a pretty big loss.

Men and women cannot go through life alone. A few hermits have tried it and gone crazy. And the gap between the crazy hermit and the isolated farm family isn't so big as it might seem. Isolation results in "in-grown" characters; it stunts and warps the human soul; it robs us of friendship, which we need just as we need food.

The surest way to success is to mingle with our fellowmen, and women. The more people we meet and know, the more avenues we open to success. Friendship inspires, first of all, a desire to do our work as well as we see our friends doing theirs. It is an incentive to good effort. It inspires confidence. We see that we can equal other's good work, and we are proud of the fact. So we lift our heads and face men squarely. Then we try to do a little better than others. We begin to select our friends—look up to some because they are exceptionally competent, or kindly or generous. These are our examples, and we try to do as well as they do.

The great successes made by men in the cities are due largely to the fact that these men have always lived among other men, have had many examples to follow, and have seen how and where others make both mistakes and successes.

There has been too much isolation on some of our farms. The telephone and the automobile have made it unnecessary. It is today easily possible for farmers to "get together." The best step toward farm success, happy farm life, and the future of our farm boys and girls, lies in this "getting-together." Every farm family, should make it a point to have "company" at least once a week. And every farm family should make it a point to visit some other farm family at least once a week. Then, every farm family should see that there is a public meeting of some kind in the rural schoolhouse, in the town hall, or in the barn

(if there is no better place), at least once a week.

Self-reliant, confident, and upstanding farm children are one result. New thoughts and ideas in both farm work and farm home, are another. Better crops, better marketing, and more money are a third.

Big Business

THE chief difference between Big Business and Little Business is a difference in efficiency.

Big Business knows; little business guesses.

Big Business often starts in a stuffy back room office. Sometimes one man and a chore boy are the whole institution. They are Big Business just the same. They know what they're doing and they do it. Soon they move from the back room to the front room; soon they occupy the entire building; and soon the organization includes hundreds of employees and spreads into hundreds of places.

Little Business starts in the same back office and stays there. The chief reason is that Little Business continues to guess. It guesses that its product is all right, while the public knows that it isn't. It guesses that its sales territory lies to the East, whereas it really lies to the West. It bungles and makes mistakes through lack of knowledge and goes to the wall.

All this is natural enough and would be all right, if it weren't for a peculiar, warped trait in human nature.

Little Business is not content with observing and learning, and thereby mending its ways. No, it doesn't do that. Instead, it rails and rants at Big Business. It does not recognize that efficiency was responsible for growth! It looks rather to see where Big Business got its special pull, or worked its graft, or gouged the public. These and by, a lot of Little Businesses, in a lot of places, get together and organize to combat the evils of Big Business.

These "evils" usually consist of well made products, good distribution, sound salesmanship, and prompt payment of bills.

If the consuming public had to deal with Little Business exclusively, it would be short of its vital necessities about half the time; it would pay prices that jumped from the ridiculously low, to the criminally high, overnight; and the seller of farm products, for instance, would collect about half his bills.

This is not a paean to great trusts and corporations, as such. It is simply an effort to point out that Big Business is just any single man who does things in a big, generous, know-how way, does them right, and therefore best serves his fellowmen.

Guessing

GUESSING is an American habit. We guess about our crops, the production of our factories, our markets, and about almost everything else upon which our business and personal futures depend.

Mighty few of us really KNOW.

Visit farm after farm and ask its owner what his last year's income really was. He guesses that perhaps it amounted to this figure or that. Ask him whether he made or lost money on the south forty. He guesses that he made money. Ask him which of his dairy cows are the best producers. He guesses that maybe the fourth and ninth cow in the row gave the most milk.

Ask the average manufacturer in which county or state his products will sell best. He'll guess. They ought to sell in Texas, perhaps, or in Washington, or in Maine. But rarely does he have accurate information on the exact conditions, demands, and requirements of his territory.

American farming and American business, like Topsey, "just growed." It is not surprising that there have been failures; the surprising thing is that there have been so many successes. We owe them to our great natural resources. We could afford to

be inefficient. The days of inefficient, however, are numbered. The time coming when we must know what we're doing, not guess at it.

If we really knew the exact cost of every farm operation, for instance, the exact income therefrom; and exactly what is profitable and what is unprofitable; we would make a lot more money. We would stop raising losing crops, and keeping losing cattle.

There are exceptions of course, of the farms and in the factories. The exceptions KNOW instead of guess. They therefore are successful.

The Bally-hoo

WHILE the rest of the world staggered with war-and-after-war drunkenness, the farmers remained sane.

Insane world ambitions, insane greed, insane profiteering, and insane prices prevailed. Insane demands for labor and insane resorts by capitalists have marked the path.

Fortunately for the world, the farm have gone along in the old same way, have grown their crops, produced food, and made life possible.

You can play hoo with the production of silk socks or phonographs, hats or safety razors, but you can fool with the wheat fields.

You can afford to stage dog fight on your factory floors for a while; but you can't afford to let 'em interfere with the threshing machine.

While the cities rang with cracked theories, the farms hummed with reapers and binders.

And that is mighty fortunate for the world.

From time to time an echo of the political bally-hoo gets into the rural communities. Enough of that echo might distract the farmer from his occupation. If it ever does, we hear the New-Thought economist. He might talk glibly about less work and more pay; about social freedom and proletarian rights, and about capitalist outrages. He can afford to talk as long as somebody, out in the country, raises wheat for his bread. But if he ever erects his side-show among the corn fields; and if the real producer ever stop their teams and lay aside their hoes to listen to him; then indeed, will the world lay palsied hands upon the pit of its stomach and yell for the ipecac.

Horse Sense

BY "HORSE SENSE" we mean the use of simple, plain, everyday judgment.

"Horse sense" isn't startling or different or inspired.

"Horse sense" is a mighty good asset. The man who has it grows to right crops, for instance.

Alfalfa is one of the best forage crops ever developed. No doubt about that. And yet in parts of the country where clover grows like a weed it is foolish to grow alfalfa. Clover is a known quantity; it is almost, if not quite, as good as alfalfa; and to grow alfalfa might be costly. Horse sense, therefore, says, in such cases, "stick to clover."

The man who is succeeding with sheep on a western range is foolish to move his live stock. Horse sense tells him to stay where he is. He will move to new pastures only if there is reasonable assurance that he will better himself.

It is wiser to stick to potatoes, light soils, than to try some new-fangled substitute that may or may not prove successful.

Experiments are all right. The world wouldn't get very far if it stopped experimenting. But the slow with horse sense does his experimenting in a conservative way, on small plot of ground; or he lets his experiment stations and agricultural colleges do it for him.

All this holds true in every active life. Horse sense tells us to rely upon the time-tried crops and methods and assistance, and tells us to do our experimenting during our spare hours, and on our spare land, with our spare money.

CLOVERLAND MAGAZINE

ERADICATING BOVINE TUBERCULOSIS

BY THE
"AREA" METHOD
By H. H. BRYANT, D.V.M.

THE Wisconsin State Legislature of 1917, urged by breeders and farmers to consider a method of eradicating bovine tuberculosis, provided that annually, for two years, beginning June 1, 1917, the sum of \$5,000 be appropriated for a survey of the state.

A state clean-up was in mind, and a desire for real knowledge for stock men, relative to future control, supplies, equipment, clerical assistance and other expenses. The legislature provided that whenever a petition, led with the Department of Agriculture, and signed by not less than one-half of the resident farmers and cattle owners of any area, requested that the cattle in that area be tested for bovine tuberculosis, the Department authorized to do so.

Waukesha County, highly progressive in the breeding of dairy cattle, as the first to respond. Its petition was filed about fourteen months ago. So date the state has tested the cattle in all but one and one-half townships, with a general average of five per cent re-actors.

In order to make this pioneer work of Waukesha County of permanent value, and to provide comparisons by which this work may be judged, a re-study should be conducted soon.

The intra-dermal test is employed. This is recognized by both federal and state authorities, as well as by progressive veterinarians, as being reliable. The test is of primal value because the owner of cattle so tested is able himself to recognize re-actors by the characteristic appearance of the tissues at the seat of injection. It also saves time. Then, too, certain physiological disturbances of the animal—like parturition and menstruation—do not affect the results of the test; this enables the stock owner to have his entire herd tested at one time.

Because Wisconsin is the leading dairy state in the Union, breeders and dairy farmers of other states and countries are looking toward it for information. When buying, they naturally inquire of state officials or dealers, where healthy cattle may be bought. At the present time it is difficult, if not impossible, for anyone to recommend any particular "AREA"—although many individual breeders and dairy farmers have, and have had, tubercular-free herds for years, due to persistent testing, educating re-actors and proper care, and live living conditions, for their cattle.

But one must consider what it means in increased values alone, if in any particular area well-bred, tubercular-free stock may be obtained; and what a boost for the entire dairy industry to be able to lay the foundation, in other localities, of dairy herds free from bovine tuberculosis!

The areas which are pioneers in this movement will surely reap its richest reward.

Barren County is the next area to take the advantage, and will be one of the leaders in the movement. Other counties are preparing to circulate petitions. Sentiment everywhere seems to favor a state-wide clean-up.

Wisconsin is the first state in the Union to adopt "area" clean-up of bovine tuberculosis. At a recent meeting of the Live Stock Sanitary Officials of the United States, held at Chicago, the sentiment seemed favorable to

adopting similar methods in other states.

As one official recently expressed it: "It is simply sound business." So, this good work, well started, should be pushed to a successful finish.

HOUSING FARM ANIMALS

MANY of the diseases that afflict our farm animals are due to bad housing.

Some very expensive buildings make for bad housing, just as do certain cheap buildings.

Good housing means adequate protection against severe weather, plus adequate ventilation. Cleanliness, of course, is essential.

Probably tuberculosis among farm animals would never have occurred if these animals had been left entirely without shelter. Crowding them together in farm buildings undoubtedly bred the disease.

However, it would be impossible to develop highly specialized dairy cattle if we left them without weather protection. Nature does not specialize along the lines that man most desires. Nature would soon make dairy cattle rugged enough to face any kind of weather; but, nature would reduce the milking qualities as she increased the thickness of hair and hide.

So since we must have specialized farm animals, we must provide special conditions for them. The thinking man, however, will make these conditions as nearly natural as possible. In his buildings he will see that adequate protection is offered without sacrificing the fresh air, necessary to healthful existence; and he will see that the same degree of cleanliness prevails that his live stock would get if it were constantly in the clean out-of-doors.

A good barn should never drip with moisture. A ventilating system will prevent this. Such a system ought to be built into the barn. It should carry off foul air through a set of flues, and provide fresh air through another set. But if such system was not provided, then doors and windows can be made to serve the same purpose. Some sort of opening in the ceiling is advisable if the barn seems wet or the atmosphere heavy in the morning. A window raised an inch or two; or a small panel cut out of the door will let in fresh air. They will, of course, also let in the cold. Up to a certain point, however, cold is much less dangerous than foul air.

Cleanliness is a matter of effort. A barn needs a real cleaning every day. Manure remaining in the gutters or in the stalls for more than twenty-four hours becomes plain filth. A microscope would show it swarming with millions of bacteria of every kind. It ought to be removed daily. Where a high grade dairy herd, for instance, is under test, it is removed two or three times daily. Such care is usually not possible on the average farm. It ought to be made possible to have at least one thorough cleanup in the barn once every day. If this can't be done for lack of help, then the best possible effort, at least, should be made to clean thoroughly every other day or every three days, or once a week; but clean up if you hope to keep live stock in good health.

An adequate supply of fresh water is another health need. Live stock cannot thrive without adequate quantities of liquid to flow through the digestive system, aid in the digestion of

foodstuffs, and help carry away waste. To induce sufficient drinking this water should not only be clean and pure, but of the right temperature. A stock tank, in which the farmer must break through six inches of ice before he turns out his cattle, is not going to provide the right water supply.

The tank ought to be heated. Water need not be luke-warm, but it should not be ice-cold. The extreme chill should be taken from it. Tank heaters can be bought for little money, or hot water can be forced into the tank by some other means.

It is better to turn cattle out to drink than to water them in the barn. This statement presumes, however, that the barn is properly ventilated. If there is little ventilation, and the barn is extremely warm, then it may do cattle more harm than good to turn them, suddenly, into an outdoor temperature, 50, 60, or 70 degrees lower



H. H. Bryant, D. V. M., has joined the staff of the Cloverland Magazine. Dr. Bryant will advise readers on veterinary subjects, or live stock care, in these pages. This service is open to every reader.

Dr. Bryant was a practicing veterinarian in Minnesota, after graduating from the veterinary department of the Ohio State University, where he secured his D. V. M. degree. He has had practical experience in stock raising and in cattle, sheep, and stock feeding in Nebraska and Wisconsin.

For the past eight years he has been chief of the Food Inspection Division of the Milwaukee Health Department. In that capacity he supervised veterinary post mortem work, the tuberculin testing of Southern Wisconsin dairy herds, and directed live stock movements in the Milwaukee stock yards. He became intimately acquainted with markets, storage practices, and every other phase of farm produce and food handling.

THE EDITORS.

than they are accustomed to.

There may be a few days during the winter when cattle should remain in the barn. These days will be marked by blizzards or unusual storms. With fresh and fairly cold air in the barn, the outdoor temperature should rarely prevent the live stock from getting out, for a few minutes at least, every day.

VETERINARY QUESTIONS

Grand Forks, N. Dak.

R. F. D.

I own a pure bred Percheron mare. When she's eating she stops chewing at times, acts as if in pain, slobbers a good deal, and sometimes drops her food. This animal is not doing as well as she should, considering the ration she is getting. What can I do for her?

J. W. B.

The mare undoubtedly has a bad tooth or teeth, and a competent veterinarian should be consulted at once.

Dyersville, Iowa.

I have a heavy eight year old work horse that has a growth on the collar set of the right shoulder. When this horse is put to hard work the growth enlarges a great deal and at times it is almost impossible to work the animal.

F. M. Jr.

The only cure for this condition is an operation. The operation is not a serious one and a horse would be laid up only until the operating wound is healed. Would advise that this be done at once so that the horse will be in condition for spring work.

Sheboygan, Wis.

I have a stone basement barn in which I am keeping, at the present time, seven head of cattle and eight head of stock. I notice in the morning when I go in the barn that the walls and ceiling are dripping with moisture and that the cattle have a rough coat and are not doing well. I am feeding corn silage, clover hay and a grain ration.

G. D. B.

Your trouble is undoubtedly due to poor ventilation which usually can be remedied at little expense. If you will send a diagram of the barn we will be glad to advise you how to ventilate.

Fargo, S. Dak., R. F. D.

If I should test my dairy herd for a number of years for tuberculosis would

there be any danger of them contracting the disease from the test. Do you think there is any physical change in the animal from continual testing?

Your animals cannot contract tuberculosis from the tuberculin used in testing. This is a sterile product. No physical changes take place from continual testing.

Red Wing, Minn., R. F. D.

Last spring I lost quite a number of pigs from what I am told is called thumps, and scours. Could you tell me how to avoid this same trouble the coming spring?

C. McC.

If you noticed, the pigs that were suffering from "thumps" were exceedingly fat; that is the cause of the trouble. Use care in selecting a sound food ration for the mother. See that the young pigs get plenty of exercise. You probably will find that your troubles will cease. Very open scours are associated with what is called "thumps." Scours usually follow over-feeding of the sow, dirty troughs and pens, or exposure to cold or wet.

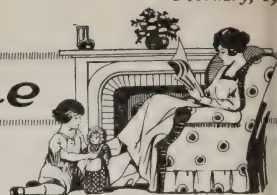
The first thing to do is to cut down the mother's feed and thoroughly clean and disinfect the pens and troughs. Give the mother a good physic and if possible give each pig a teaspoonful of castor-oil, care being taken that you do not choke the pig while administering this dose. Provide plenty of charcoal in the feeding quarters.

H. H. BRYANT, D. V. M.



Woman and the Home

By HARRIET L. HARLOW



EVERY American farm home can have beautiful surroundings, and they won't cost a dollar in actual cash.

But we won't have them until they are demanded by the farm women.

Our men folks are too busy; they don't think much about beauty; they are more concerned about their fields and barns. Women, on the other hand have been making the home interior comfortable and pleasant, but have too often forgotten the exterior.

And yet a beautiful home has quite as much effect upon the boy and girl, and does quite as much to bring cheer into the life of the family, as a comfortable one.

I will never forget a school I once attended. The building was a sombre brick structure, badly smudged and smoked up. The playground was a plot of hard clay littered with rubbish. There wasn't a blade of grass upon it. In one corner a single stunted tree tried to grow.

Every morning as I came in sight of the school, I involuntarily thought of a prison. There wasn't a friendly thing about it. I hated that school.

Later I went to another. Several of its women teachers appreciated the effect of surroundings upon children's

Wouldn't a \$50 Check Help?

I want to enlist every farm woman in an effort to make the farm homes of America the nation's most beautiful homes. With that purpose in view, I have induced the publishers of the Cloverland Magazine to offer cash prizes of \$50, \$25 and \$10 for the best outdoor farm-home improvements made during the coming summer.

Any reader is eligible.

The requirements are very simple: Take a picture of your farm home as soon as the snow is off the ground—or have a friend, or the local photographer take it. Then begin beautifying, as suggested on this page. On the first of July take another picture, from exactly the same place; on the first of October take a third picture.

These photographs should not cost you more than a dollar each, at most. Whether you win a prize or not, the Cloverland Magazine will pay two dollars each for the pictures—all that can be used for publication. So you are not likely to be out even this small expenditure. As you send in the pictures, tell how you planned and planted. In the meantime send me, on a postal card, your name and mailing address, and just say, "I want to enlist in the beautiful farm home movement."

I will send you, by letter, additional suggestions to help you and you will receive constant aid through these pages.

Harriet L. Harlow

minds. They induced the school board to engage a landscape gardener. He laid out beds and shrubbery and trees, planted a perennial border edged it with grass, and left a clear graveled plot in the center.

I really delighted in going to the school. The whole effect when I reached the building every morning was one of welcome, of cheer, and of friendship.

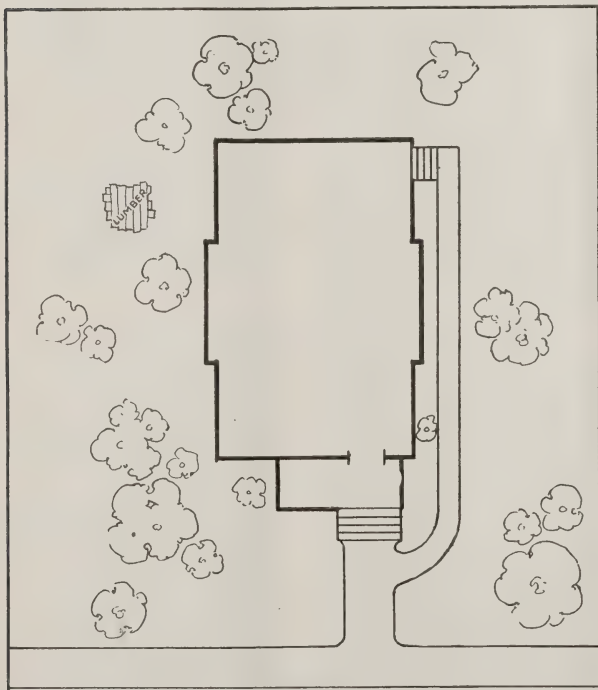
The home has exactly the same effect upon a child mind. The child does not analyze it. The effect is unconscious. But children naturally delight in coming home, or they naturally want to get away from home—depending upon the home and its surroundings. Since we are all just growing up children, the same impressions are made upon our own minds. We unconsciously like a place or we dislike it; we want to go there, or we want to keep away; and surely every farm should have that something about which makes folks want to go there.

Now how to achieve it? I have said it can be done without the expenditure of a single dollar in cash. I mean just that.

Home surroundings are a question.

(Continued on page 17)

BEFORE PLANTING YOUR BORDER, PLAN IT



One of the first principles in landscape gardening is: Plant around the edges and leave the center clear.

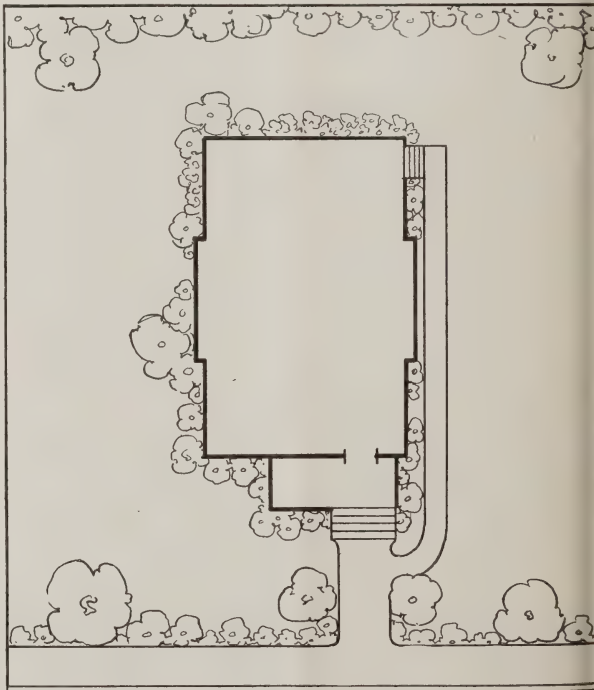
In other words, do not scatter trees, shrubs, and flowers all over the place. Plant them in borders. The borders should not be straight lines; they should have irregular edges made by widening the border in one place, and making it narrow in another. Usually corners are most effective when rounded off. They can stand a good deal of width. The border, at its corners, should have a group of small trees, a group of shrubs around them, pretty closely set together, and perennials or annuals massed heavily in front of this shrubbery.

Out-buildings, woodpiles, or other unsightly places can be covered or screened by shrubs or vines.

One of the best vines is the ordinary Virginia creeper, which grows along farm fences and in every woodlot. Bittersweet is another excellent vine that will grow readily if carefully transplanted, and that gives us its clusters of berries, which keep so perfectly through the winter and are always attractive home decorations. Sweetpeas also make a fairly good covering, but are not quite as dense as some other vines. Seed catalogues illustrate any number of vines for spring planting.

Out-buildings can be screened by planting two or three saplings ten or twelve feet high, in front of them, and surrounding these saplings with shrubs.

If the border idea in planting has not been followed in the past, it usually is possible to start it. Of course, where



large trees surround a farm house it is not wise to sacrifice many of them. Sometimes, however, two or three such trees, growing in the center of the yard, can be cut away. Smaller trees can be transplanted to the border.

Saplings, transplanted from the woodlot, are very effective in the border. Maples are good. Basswood or linden are effective and quick growing. Locust shrubbery is very beautiful but is said to draw heavily upon the soil and may spread into surrounding fields. It is a good shrub or tree to use, however, if watched. Elms, of course, are beautiful. If they are used in the border it must be remembered that they will eventually be large trees and they must, therefore, be properly placed. Wild flowers, grouped in front of the shrubbery,

should always be planted in masses. Tulips, for instance, are most effective dozens, or even hundreds, of them grouped closely together.

Before planting the border, PLAN. Measure off a generous plot around your house. Draw it on paper, to a scale, one-fourth or one-eighth inch per foot. Then sketch in your border, giving it attractive curves and nooks. Then mark with crosses the exact location of your trees. Designate shrubs closely around these trees, and rather densely fill the border with them. Leave from eight inches to three or four feet in front of the shrubs for a perennial border and annuals.

The border becomes more beautiful each year as it grows, as it is pruned, and as you add to it.



HOME SEWING

WITH the holiday season over, and the cold months of February and March before us, our days are more pleasantly spent indoors than out.

Let's plan some summer underwear, nightgowns, aprons, (slip-over and tie-on) smart house dresses, children's bloomers, nightgowns, princess slips, (both flannel and cotton), and even the plain, neat wash dress for the wee little girl or the rompers for the little boy.

At this season, with ready-to-wear apparel so noticeably high in price, the mother who has always been her own dressmaker will be anxious to get at her spring sewing; while the inexperienced needlewoman will want to learn how to make the plain every day clothes at least, and possibly work into larger things.

In years gone by sewing was a home art, and hence women, throughout the years, have inherited a certain ability for it.

The tissue-paper pattern today, has been perfected to such a wonderful degree that anyone who follows the cutting diagram and directions carefully will have very little trouble.

Always choose a style that is suited to your figure. If you are moderately tall and slender, practically any style is becoming. But unfortunately all of us are not moderately tall and slender. Many are unusually tall and very thin, and many more are very short and stout. The tall, thin figure should never wear too long, straight lines; the height should be broken by a wide belt, peplum, or drapery of some description. The short or stout figure should use the long, straight lines.

The material and color should also be considered. Stripes are very good for the short or stout figure, while checks and plaids can always be worn by the tall slender figure, as they tend to add width.

The dark conservative shades are the safest choice for the stout woman—while the slender, youthful figure is always attractive in the bright or light colors. White can always worn by

every one; and as the season advances, white should be worn as much as possible.

This spring again, the gingham (both plaid and plain) will be popular material for wash dresses.

All gingham should be shrunk before making up, no matter what the price paid for material. I always shrink gingham by using a warm, soft water to which has been added a half cup of salt and one tablespoon of turpentine for setting the color. Stir well and let the material stand in this solution for two hours; wring out slightly by hand; hang on line in a shady place and allow to partly dry; finish drying by ironing. Never hang gingham, or any bright cotton material, in hot sunshine, as this always fades the material.

FIG 1.—This month let us start on a plain house dress made of a pretty, blue checked gingham. Buy a plain, one-piece pattern of correct bust measure. It may be varied in many ways, by changing the shape of collar, cuffs, pockets, and belt, and by combining the plain white material with the checked, or trimming the plain dress with the checked or plaid material of the same color.

Five or six yards of material, a yard wide, and one yard of contracting material for trimming is required for a thirty-six to thirty-eight bust measure. Lay all pieces of pattern on fold of material and cut. By pinning front and back together at shoulder, and under arm seams, and stitching, a good deal of basting can be done away with, on wash material.

In the illustration I have used the white linens or Indian head for collar, belt and cuffs, with strapped pockets of same material. The edges of the pockets being finished with a bias fold of material. How many mothers know the wonderful value of the white bias, tape, about three-fourths of an

inch in width? Use the same pattern and develop a dress in plain material, binding all edges of pockets, collar, cuffs, and belt with the white bias tape. Simply fold tape, baste over edges, and stitch flat.

The closing of dress may be finished with a straight plait or a box plait, for the buttons and button holes.

Always choose a medium, fish eye button, as they go through the wash better.

Sleeves may be stitched up like dress without basting, if first pinned.

Pin all trimming, and sleeve in place and try on. Make any necessary alterations and stitch in place.

I have also illustrated a plain dust cap, trimmed with the white, to be used for sweeping and dusting, if wanted. Simply buy three-fourths of a yard more material.

Save all good sized pieces of material left from dress, to trim the little girl's dress later on.

FIG 2.—One of the essential things in the home today is the using up of the older garments which are still too good to be put in the rag bag. How many mothers have ever thought of taking father's or brother's discarded flannel shirt and making the little tot, of two or three years, a princess slip like the one illustrated? This design may be bought at any pattern store.

The edges of the armholes, neck, and the hem, may be turned in and feather stitched in place, or a little plain edge, crocheted on.

FIG 3.—In going through mother's or the big sister's wardrobe, we find several white wash skirts left over from last year. With cotton goods so very high and no lower prices in sight, we mothers must plan on using the good parts of these skirts for the little girl of four, for her princess slip.

A little piece of embroidery, possibly taken from the good part of the old skirt, may be used for the ruffle, and a little cheap lace added to neck and armhole finishes a pretty little slip.

FIG 4.—If the old under skirt had a deep double flounce on it, it may be used as illustrated, and put on a plain little waist. Use the same pattern for cutting this waist as for princess slip, only as you cut down the under arm seams slope in, instead of out, to make the little waist fit close. Cut off. Open down back for closing.

FIG 5.—One of the most useful garments ever designed for the little girl are the bloomers. The little girl should have the dark bloomer for play and the white for dress up. By taking the skirt of an old dark or light blue house dress from which the waist is gone, I developed two good pair of gingham bloomers to be worn with her play dresses.

There is always enough good material in every old skirt for one or two pairs of bloomers for play, no matter what color the skirt is.

Now, mothers, look at your last summer's outside wash skirt. It is yellow and possibly out of style, while the material is still good. Make the little girl her white bloomers from these for the summer. The material will wash up white and if of crash will require no ironing, where as all plain white long cloth always requires ironing.

FIG 6.—At this time of the year baby's little booties, or bed slippers, are beginning to wear, and he still does not need the soft shoes. Warm bed slippers or booties for the small child may be made from leftover pieces of elderdown or heavy outing flannel.

By taking an old soft shoe of the child's, placing on heavy paper, and cutting a few patterns from it, one can soon shape the cloth as required to make a comfortable and well shaped slipper.

"Dainty Suggestions"

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Woman and the Home



A WEEK OF DINNERS

LAST MONTH we discussed "A Week of Breakfasts"; now for a week of dinners.

Those listed here are just plain, everyday farm dinners—nutritious, wholesome, and the kind that the average farm home can really have. We are not making suggestions for a New York hotel, you know, nor yet for a home economics course at a woman's college.

In preparing these menus, therefore, we have first considered the cost of things. It is easy enough to suggest

fancy cuts of meat, and out-of-season desserts, when you don't have to pay for them. So instead, we've tried to use the kinds of meat that can be economically bought, and the kinds of vegetables usually stored away in the farm bins. Next, we've tried to suggest dinners that farm folks would really want to eat.

The recipes which follow include only those dishes in the menus that may be prepared in a number of ways; or that may not be known to everybody. All of these recipes have been tried out and have proven good.

For the Outdoor Family

MONDAY
Boiled Beef Horseradish
Mashed Potatoes Egg Sauce
Carrots Bread and Butter
Apple Pie
Coffee, Tea or Milk

TUESDAY
Vegetable Soup
Beef Hash
Squash or Boiled Onions
Relish
Bread and Butter
Coffee, Tea or Milk

WEDNESDAY
Steamed Ham Baked Potatoes
Rutabagas
Pickles or Relish
Bread and Butter
Rice Pudding
Coffee, Tea or Milk

THURSDAY
Browned Veal Stew
Boiled Potatoes
Fried Parsnips
Bread and Butter
Hot Mince Pie
Coffee, Tea or Milk

FRIDAY
Corned Beef Cabbage
Boiled Potatoes
Hot Corn Bread
Gelatine Dessert
Coffee, Tea or Milk

SATURDAY
Pork and Beans
Catsup
Baked Potatoes
Brown Bread
Baked Apples
Coffee, Tea or Milk

SUNDAY
Tomato Soup
Roast Pork with Apple Sauce
Mashed Potatoes
Squash
Lemon Pie, or Ice Cream and Cake
Coffee, Tea or Milk

For the Indoor Family

MONDAY
Boiled Beef Horseradish
Mashed Potatoes
Bread and Butter
Apple Pie
Coffee, Tea or Milk

TUESDAY
Beef Hash
Squash or Boiled Onions
Relish
Bread and Butter
Snow Pudding
Coffee, Tea or Milk

WEDNESDAY
Steamed Ham Baked Potatoes
Pickles or Relish
Bread and Butter
Rice Pudding
Coffee, Tea or Milk

THURSDAY
Browned Veal Stew Boiled Potatoes
Bread and Butter
Hot Mince Pie
Coffee, Tea or Milk

FRIDAY
Corned Beef Cabbage
Boiled Potatoes
Hot Corn Bread
Gelatine Dessert
Coffee, Tea or Milk

SATURDAY
Pork and Beans
Catsup
Brown Bread
Baked Apples
Coffee, Tea or Milk

SUNDAY
Tomato Soup
Roast Pork with Apple Sauce
Mashed Potatoes
Lemon Pie or Ice Cream and Cake
Coffee, Tea or Milk

Recipes for These Dinners

BOILED BEEF:—Place beef in a kettle in water, to which $\frac{1}{2}$ teaspoonful of vinegar has been added. Cook until tender, keeping sufficient water on the meat to nearly cover it. Mix 3 tablespoonfuls of flour in $\frac{1}{2}$ cup of milk; add this to 4 or 5 cups of water in which the beef has been boiled; season and add enough grated horseradish to make a thick sauce.

CARROTS WITH EGG SAUCE:—Thoroughly scrape carrots to remove the outer covering. Cut into small squares. Boil until tender in just enough water to cover. Add a sauce made by heating 1 cup of milk into which 2 teaspoonfuls of flour are stirred, after first mixing flour smooth with milk. Add the well beaten yolk of an egg, stirring rapidly. Then boil up once, add salt and pour over the carrots.

VEGETABLE SOUP:—Use any vegetables cut into small pieces, but include one sliced onion and 3 or 4 potatoes; add left-over gravy or a piece of butter and meat or beef bone if available. Cover well with water and boil very slowly until potatoes fall apart, and all other vegetables are tender; season to taste. This soup may be strained or the vegetables may be mashed through a colander, or the soup may be served with vegetables left whole.

SNOW PUDDING:—To the whites of 4 eggs beaten stiff, add 3 table-

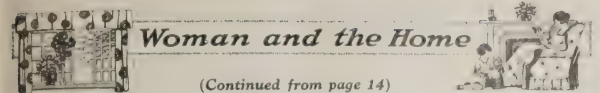
spoons corn starch dissolved in a little water, $\frac{1}{2}$ pint boiling water poured on corn starch. Add a pinch of salt and allow the ingredients to steam 15 minutes. Make a sauce by using the yolks of the eggs, $\frac{1}{2}$ cup sugar, 1 cup sweet milk, and a little sweet cream or butter. Cook until creamy and flavor to taste.

BROWN BREAD:—Mix one cup sour milk, 1 cup corn meal, 1 cup wheat flour, 1 cup molasses, 1 cup rye or graham flour, and 1 teaspoonful soda; add salt. Use a scant measure for the corn meal. Steam this mixture for two hours. Nuts or raisins may be added, and the steamed bread may be baked for 20 minutes to $\frac{1}{2}$ hour, or served directly after steaming.

STEAMED HAM:—Place the ham in water for several hours; wash thoroughly with a stiff brush to remove the salt and smoke; put into a steamer tightly covered, and keep the water boiling hard. Allow about 20 minutes to the pound. If the ham is served hot, skin and cover thickly with crumbs to keep the juice from escaping. Highly spiced sauces made from the water in which the ham has been boiled, and to which condiments, and cloves and raisins have been added, can be used.

BROWNED VEAL STEW:—Melt 3 tablespoonfuls of butter or drippings

(Continued on page 19)



Woman and the Home

(Continued from page 14)

of order, of trees and shrubs, of flowers, and a lawn.

Why then have an untidy woodpile scattered about near the side door? Why have a yard cluttered with straw and chaff, or other farm refuse? Why have machinery standing about, and why have conspicuous out-buildings.

The first step is to clean up. This can be begun at once. The men folks, just now, are not quite as busy as at other times of the year. They can get the woodpile arranged neatly, in a convenient place behind the house. They can remove machinery—which ought not to be outdoors anyway—to a shed or to a barn. They can pick up generally, in preparation for spring.

In spring, and before any work can be done in the fields, they can turn over six or eight furrows, all around the edges of the front yard. This plowing can be attempted almost before the frost is out of the ground. I don't want to suggest anything that will interfere with regular farm work.

The plowed ground will now form a border, with an unplowed plot in the middle. This border should be spaded. It should be widened in some places and narrowed in others, so that the effect will be irregular.

The shrubs or small trees already growing in the middle of this plot should be transplanted to effective parts of the border. The next step will be the transplanting of maple, basswood, or even poplar saplings from the woodlot. These two can be secured before the farm demands its big spring attention. In the same woodlot will be found many attractive shrubs. With the trees forming an irregular

line at the back of the border, and shrubs planted pretty thickly in front of them, a start has been made toward beautiful home surroundings.

A little later in spring wild flowers can be set in front of the shrubs.

It is astonishing how many beautiful wild flowers grow on every farm. I have found the railroad right-of-way the best possible place to get them. From them I have transplanted field lilies, the Turk's cap lily, and a host of other perennials.

Remember that people in the city pay anywhere from fifty cents to five dollars for these same plants. The transplanting can be done throughout the summer. It is only necessary that enough soil be taken up with the roots.

All the ordinary domesticated flowers can be grouped with the wild flowers. Phlox, geraniums, tulips, hyacinths, begonias, and that host of others which every farm woman knows. Annuals can be seeded in, and of course, a lot of money can be spent upon these borders. It is not my purpose, however, to suggest any such expenditure. In fact I am much more interested in beautiful home surroundings that cost nothing except a little work.

Next month therefore, I want to go into more careful detail and careful explanation. In the meantime I want every woman reader of the Cloverland Magazine to begin a drive upon her men folks and plan, for the sake of her children, her family, or herself, to make her home surroundings so attractive that they will just naturally invite friendship from everyone.

SETTING THE TABLE

"One of the most commonly accepted reasons for the existing methods of laying table and serving," says Miss Florence Redifer, of the Home Economics Department of the Colorado Agricultural College, "is the accompanying satisfaction which one has in the realization that he is not different from other people and he knows 'how.' Some one has expressed this idea very aptly in the following: 'Etiquette is the name given to the rules of society, and society is a game which all men play. If you play it well, you win. If you play it ill, you lose. The prize is a certain sort of happiness, without which no human being is ever quite satisfied.'"

"But there is a more potent reason

than the above for artistic table service, one more far reaching and basic than the desire to please and be pleasing—one which is conducive to better health for the family.

"We all know how much better a meal tastes, no difference how simple, when served with care and thought than if served in a haphazard and hurried manner. And why? Digestion in the mouth and also the stomach is stimulated physically as well as in other ways and this means that the odor and sight of food stimulates the appetite. It is very apparent then that a well laid table with clean, simple and attractive service would result in greater enjoyment of the meal and an easier digestion of food."

Children's Odd Names

Chinese parents are afraid to give their children the fine high sounding names their love suggests, lest the evil spirits, of whom they stand in constant fear, should come to understand how precious they are and cause them some calamity.

So the little ones are called by such names as Little Stupid, and the like, the idea being that when the spirits hear the children called by such uncomplimentary names they will imagine that the parents care very little for them, and will not take the trouble to molest them.

In 1873 the high school girls of Portland, Me., unanimously decided to discard jewelry and expensive articles of dress while attending school.

Mother Catherine, a Franciscan nun and founder of the St. Clare academy at Mount Hope, N. Y., has just completed 50 years as a nun.

Twenty-one American women will receive medals according to the latest list of citations announced by the French government.

Simple Towels are Best

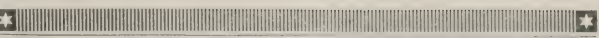
When selecting a method of ornamenting a towel one should consider the fact that a towel needs to be laundered frequently, and for this reason delicate handiwork, such as cutwork embroidery or hardanger, should not be used.

One of the very newest towels has a band of pink chambray stitched just above the deep hem and on the center of this strip a spray of flowers is embroidered in soft colors.

Another step toward enfranchisement of women was taken recently when the house of bishops of the Protestant Episcopal Church, in convention in Detroit, Mich., gave permission to the missionary district of San Joaquin, Cal., to admit women to its legislative councils.

Mrs. Ethel Parks, who is in charge of the financial department of the Democratic national committee, studied law before entering politics.

The Campfire girls of Irwin, Ohio, under the leadership of Mrs. Howard Gault, are repairing roads in the vicinity.



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A Poultry House That Aids Egg Production in Winter

By A. C. SMITH

THE Minnesota Model Poultry House is designed to shelter a flock of one hundred comfortably at all seasons, under Minnesota conditions. The following features will, it is believed, meet the approval of poultry keepers in general.

First, a two-pen house providing one of three advantages:

(a) Keeping the pullets and hens in separate flocks.

(b) Keeping the breeders and layers in separate flocks.

(c) Keeping the males and females in separate flocks.

Second, a simple system of ventilation that can be easily adapted to widely different conditions.

Third, a system of construction that is progressive both in regard to construction and cost.

This house may be built at as little cost as it is possible to construct a comfortable and durable house or it

The Minnesota Model Poultry House was designed by A. C. Smith, professor of poultry husbandry, University Farm, University of Minnesota, several years ago, and has become a very popular type of poultry building, as construction cost has been reduced to a minimum without sacrificing comfort of the flock, the secret of winter egg production and strong, healthy chickens. The poultry house is well adapted to any part of Northern United States, and its proven success on University Farm and on many farms in Minnesota is a good recommendation to the farmers in any section of the country where warm poultry houses are necessary to insure efficiency and profit from the flock.

may be built in such a manner as to become an ornament to any grounds and tastily enough to be the companion of the very best modeled farm buildings. Furthermore, the evolution may be completed slowly and gradually or at once, without wasting a bit of building paper, a shingle or even a nail. The interior fittings make it as simple and easy to care for as can be constructed and provide accommoda-

tions for both the breeding and laying flocks.

Explanatory Specifications.

Foundation and floor—cement wall the best. Mix one part Portland cement—two parts fine, sharp sand—four parts sharp gravel. If sand and gravel from pit is coarse and sharp, mix as it is, six parts to one of cement; if fine in the pit, four parts to one of cement.

Wall should be one foot thick at bottom and eight inches on top; should be about fifteen inches above ground level, as floor should be one foot above the outside level to insure dryness. This brings the top of the wall three inches above floor level. This allows the door to swing over litter. Fill in for floor three inches coarse gravel or small rocks, four inches of finer gravel, one inch of clay, roll stamp or tramp hard (this makes the cleaning line). Cover with four inches of fine sand. This latter should be cleared out every summer and be replaced by a fresh, clean layer.

WALLS—Nail matched boards running up and down to outside of frame, with one or two layers of double ply tar paper, covered with shingles, clapboards or siding. Paint two coats quickly to avoid shrinkage.

ROOF—Matched boards and good, durable, heavy roofing paper or shingle roof.

- Finish Lumber.**
- 4 pcs. 1x4 Pine No. 1 Common S2S 16 ft. long—Roof.
 - 4 pcs. 1x8 Pine No. 1 Common S2S 16 ft. long—Cornice, front and rear.
 - 2 pcs. 1x2 Pine No. 1 Common S2S 16 ft. long—To hold ends of roofing paper
 - 1 pc. 1x4 Pine No. 1 Common S2S 12 ft. long—Rear corner.
 - 1 pc. 1x5 Pine No. 1 Common S2S 14 ft. long—Rear corner
 - 1 pc. 1x4 Pine No. 1 Common S2S 16 ft. long—Front corner
 - 1 pc. 1x5 Pine No. 1 Common S2S 16 ft. long—Front corner
 - 1 pc. 1x4 Pine No. 1 Common S2S 18 ft. long—Door finish.
 - 1 pc. 1x6 Pine No. 1 Common S2S 16 ft. long—For door cleats
 - 1 pc. 1x4 Pine No. 1 Common S2S 16 ft. long—For partition door cleats.
 - 2 pcs. 1x4 S2S pine for cleats for roosting and nest platforms.
 - 2 pcs. 1x4 18 ft. long for finish on upper open windows.
 - 3 pcs. 1x4 10 ft. long inside box on upper window.
 - 2 pcs. 1x4 10 ft. long inside box on upper window.
 - 1 pc. 1x15 10 ft. long—Equipment for small upper doors, ventilation.
 - 1 pc. 1x12 4 ft. long—Equipment for lower siding doors.
- Wooden door may be made from a 15" board in which case it would be advisable to put the cleats on back to prevent warping. Matched stock bound by cleats may be used.

Fittings—

- 3 windows 10x12 12 light—1 1/2" sash glazed.
- 3 window frames 10x12 12 light—1 1/2" casings—2x6 sills.
- 1 door frame 2' 8" x 6' 8"—1 1/2" oak sill.

Roofing—

- 6 squares of roofing (rubberoid or equal) for roof.
- 7 squares of double ply tarred paper or other of equal quality and thickness if wall is to be covered.

Hardware—

- 6 lbs. 20d wire spikes.
- 20 lbs. 8d common wire nails.
- 2 lbs. 8d finishing nails.
- 100 lbs. X10 bolts with 2 washers each to fasten sills to foundation.
- 2 pr. 6" heavy T hinges (galvanized)
- 3 pr. 6" hooks and eyes.
- 1 pr. 6" hinge, hasp and staple. 1 padlock.
- 2 pr. 8" heavy T hinges.
- 2 pr. 4" hooks and eyes.

Material for Foundation—

6 bbls. Portland cement.

4 yds. sand.

Sills.

3 pcs. 2x4 16 ft. long

Studding—Rear Wall.

3 pcs. 2x4 12 ft. long, cut 5 1/2 long.

Ends (West wall) 1 pc. 2x4 14 ft. long, cut one 8' long and one 6' long.

(East wall) 1 pc. 2x4 14 ft. long, cut one 8' long and one 6' long.

1 pc. 2x4 12 ft. long, cut one 8' long and one 4' long (top of door)

Front. 5 pcs. 2x4 16 ft. long, cut 7' 8" long.

3 pcs. 2x4 12 ft. long, cut 3' 6" long.

4 pcs. 2x4 16 ft. long front and rear.

Plates—Nailing pieces between sill and plate—

Rear wall. 3 pcs. 2x4 16 ft. long

End—East wall. 1 pc. 2x4 12 ft. long

End—West wall. 1 pc. 2x4 12 ft. long

Front wall. 1 pc. 2x4 20 ft. long

Small doors. 1 pc. 2x4 (Waste cut from other stock).

Rafters—

16 pcs. 2x6 18 ft. long.

5 pcs. 2x6 10 ft. long, ripped to 2x3, Equal to 100 linear (2x3)

Platform Supports—

1 pc. 2x4 15 ft. long—cut 4' long (Cross pcs. horizontal).

1 pc. 2x4 12 ft. long—cut 4' long (Vertical posts)

1 pc. 2x4 (posts vertical) 16' long.

1 pc. 2x4 (cross pieces—horizontal)

Water Stand—

2 pcs. 2x4 16 ft. long.

Matched Boards—

Rear 46 pcs. 6" D & M Boards 12 ft. lengths

Ends 33 pcs. 6" D & M Boards 14 ft. lengths

Front 23 pcs. 6" D & M Boards 16 ft. lengths

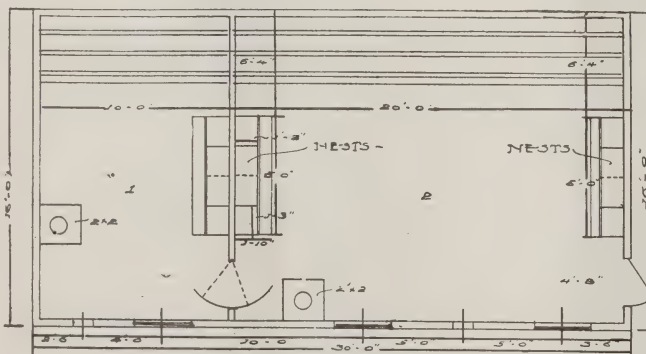
Roof 33 pcs. 6" D & M Boards 16 ft. lengths

Partition 20 pcs. 6" D & M Boards 14 ft. lengths

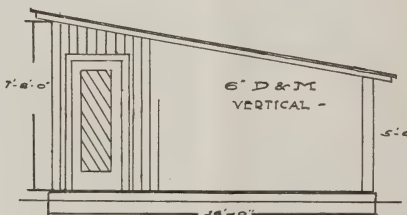
Roosting Platform 18 pcs. 6" D & M Boards 16 ft. lengths

Nest Platform 3 pcs. 6" D & M Boards 16 ft. lengths

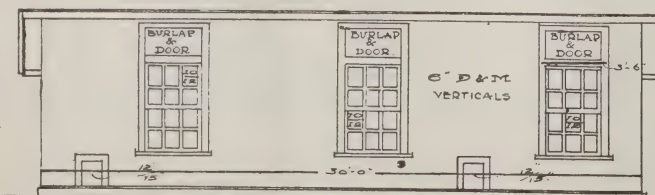
Top of Nests 5 pcs. 6" D & M Boards 12 ft. lengths



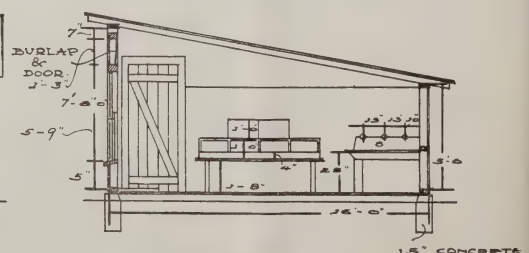
— FLOOR PLAN —



— END ELEVATION — A



— FRONT ELEVATION —



— SECTION A —

Detail of the Minnesota Model Poultry House That Has Proven Its Value in the Long, Cold Winters of the North


 Woman and the Home

(Continued from page 16)

in a stew pan; add 3 tablespoonfuls of flour, stirring until a rich brown; slowly add 3 pints of water; then add a small sliced onion, a little parsley, and the meat. Cover the pan, allowing it to simmer for 3 hours on the back of the stove. When half done add salt and pepper.

CORN BREAD:—Mix one cup of corn meal, 1 cup wheat flour, 1 cup sweet milk, 2 tablespoonfuls melted butter, 2 tablespoonfuls sugar, 2 tablespoonfuls baking powder, and 2 eggs. Add salt, stir thoroughly and bake in shallow cake tins.

Hot Lunches at School

The home economics service of University Farm, University of Minnesota is urging the introduction of hot lunches in all public schools in that state, and has placed its entire service at the disposal of teachers and school boards to inaugurate the system. Home demonstration agents in Worlson, Dakota, Olmsted, Clay, Anoka, Hennepin, and several other counties in Minnesota already have met success with the innovation in rural schools.

"Not only do the parents and teachers approve of it," says Miss Adele Koch, of the extension division, University Farm, "but the children are unanimously in favor of it. To have one dish at noon requires very little equipment. The additional work for the teacher is light, as the children take turns in helping. Cost of the food is nominal as supplies may be brought from home, each contributing a share. For the children it means eating lunch in an orderly way while seated at a desk instead of snatching a bite of sandwich or doughnut while at play. It also means that the children eat a nourishing lunch instead of forgetting to eat or preferring not to eat starchy old food. It means improved health, bright eyes and red cheeks. The children are more alert and better able to master their lessons."

NO SUBSTITUTE

There is no substitute for sugar. Chemical preparations may be used for sweetening but they do not contain the nutriment of sugar and are usually injurious. For this reason substitutes for sugar should be shunned. It is better to do with less sweetening than take chances of injuring your health and the health of our children with "substitutes".

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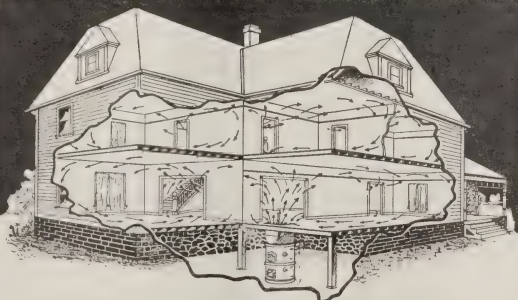
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Quaker Pipeless Furnace

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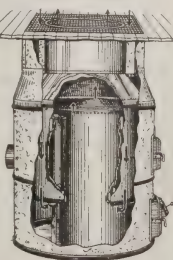
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Sends heat to every room in the house. Ventilates as well as heats. Changes and purifies the air to every room. Keeps the cellar cool for fruit and vegetable storage.

Write MARSHALL WELLS CO., at Duluth,

for advice as to size to use; price will be quoted and order handled through your local dealer.



Arrows show direction
of air currents

THE NORTH WIND'S MALICE

(Continued from page 11)

the mischief that comes to Arctic widows, and he grew apprehensive.

The travelers put up that night at the Tin Road-house, a comfortable shack sheathed with flattened kerosene cans, and Folsom's irritation at his new partner increased, for Harkness was loud, boastful, and blatantly egotistical, with the egotism that accompanies dense ignorance.

The weather held cold, the snow remained as dry as sand, so they made slow progress, and the husband had ample time to meditate upon his wrongs, but the more he considered them the less acutely they smarted him and the gentler became his thoughts of Lois. The solitudes were healing his hurt, the open air was cooling his anger.

At Kougarok City, a miserable huddle of cottonwood cabins, Harkness escaped his partner's watchful eye and got drunk. Folsom found the fellow clinging to the bar and entertaining a crowd of loafers with his absurd boastings. In a white fury he seized the wretch, dragged him from the room, and flung him into his bunk, then stood guard over him most of the night.

It was during the quieter hours when the place rumbled to snores that Folsom yielded to his desire to write his wife, a desire which had been growing steadily. He was disgusted with Harkness, disappointed with the whole Kobuk enterprise, and in a peculiarly softened mood, therefore, he wrote with no attempt to conceal his yearning, homesick tenderness.

But when he read the letter in the morning it struck him as weak and sentimental, just the sort of letter he would regret having written if it should transpire that Lois did not altogether share his feelings. So he tore it up.

Those were the days of faint trails and poor accommodations; as yet the road to the Arctic was little traveled and imperfectly known, so Harkness acted as guide. He had bragged that he knew every inch of the country, but he soon proved that his ideas of distance were vague and faulty—a serious shortcoming in a land with no food, no shelter, and no firewood except green willows in the gulch-bottoms. Folsom began to fear that the fellow's sense of direction was equally bad, and taxed him with it, but Harkness scoffed at the idea.

Leaving the last road-house behind them, they came into a hilly section of great white domes, high hog-backs, and ramifying creeks, each one exactly like its neighbor; two days' travel through this, according to Harkness, should have brought them to the Innachuck, where there was food and shelter again. But when they pitched camp for the second night Folsom felt compelled to remind his partner that they were behind their schedule, and that this was the last of their grub.

"Are you sure you're going right?" he inquired.

"Sure? Of course I'm sure. D'you think I'm lost?"

Folsom fed some twisted willow-tops into the sheet-iron stove. "I wouldn't recommend you as a pathfinder," said he. "You said we'd sleep out one night. This is two, and to-morrow we'll walk hungry."

"Well, don't blame me!" challenged the other. "I'm going slow on your account."

Now nothing could have galled Folsom more than a reflection upon his ability to travel. His lips whitened, he was upon the point of speaking his mind, but managed to check himself in time. Harkness's personality rasped him to the raw, and he had for days struggled against an utterly absurd but insistent desire to seize the little coxcomb by the throat and squeeze the arrogance out of him as juice is squeezed out of a lemon. There is flesh for which one's fingers itch.

"I notice you're ready to camp when I am," the larger man muttered. "Understand, this is no nice place to be without grub, for it's liable to storm

any hour, and storms last at this season."

"Now don't get cold feet." Harkness could be maddeningly patronizing when he chose. "Leave it to me. I take you a short cut, and we'll eat lunch in a cabin to-morrow noon."

But noon of the next day found Harkness still plodding up the riv with the dogs close at his heels. T hills to the northward were growing higher, and Folsom's general knowledge of direction told him that the edge of direction told him that the were in danger of going too far.

"I think the Innachuck is over there," said he.

Harkness hesitated, then he nodded. "Right-o! It's just over that low saddle." He indicated a sweeping hillside ahead, and a half-mile further on he left the creek and began to climb. This was heavy work for the dog and mid-afternoon came before it. Partners had gained the summit on to discover that they were not upon saddle-back after all, but upon the edge of a vast rolling tableland from which a fanlike system of creeks radiated. In all directions was a desolate waste of barren peaks.

Folsom saw that the sky ahead was thick and dark, as if a storm impended, and realizing only too well the results of the slightest error in judgment he called to Harkness. But the latter pretended not to hear, and took advantage of the dogs' fatigue to turn out of earshot. It was some time before the team overhauled him.

"Do you know where you are?" Folsom inquired.

"Certainly." Harkness studied the panorama spread before him. "The blue gulch yonder is the Innachuck. He pointed to a valley perhaps four miles away.

A fine snow began to sift downwar. The mountain peaks to the northward became obscured as by thin smoke, the afternoon shortened with alarmingly swift. Night, up here with a blizzard brewing, was unthinkable, after a while the driver called another halt.

"Something informs me that you're completely lost," he said, mildly.

"Who, me? There she is." Harkness flung out a directing hand once more.

Folsom hesitated, battling with his leaping desires, and upon that momentary hesitation hinged results out of all proportions to the gravity of the situation—issues destined to change the deepest channels of his life. Folsom hesitated, then he yielded to impulse, and the luxury of yielding made him drunk. He walked around the sled, removing his mittens with his teeth as he went. Without a word he seized his companion by the throat and throttled him until his eyes protruded and his face grew black and bloated. He relaxed his stiff finger finally, then he shook the fellow back to consciousness.

"Just as I thought," he cried, harshly. "That's not the gulch you pointed out before. You're lost and you won't admit it."

Harkness pawed the air and fought for his breath. There was abject terror in his eyes. He reeled away, but saw there was no safety in flight.

"Own up!" Folsom commanded.

"You—said this was the way," the pathfinder whimpered. "You made me—turn off—" Folsom uttered a groan and advanced a step, whereupon his victim gurgled: "Don't touch me! That's the Innachuck, so help me God! I'm—I'm almost sure it is."

"Almost!" The speaker stooped to his mittens and shook the snow out of them; he was still struggling to control himself. "Look here, Mr. Know-It-All, I've never been here before and you have; somewhere in your thick skull there must be some faint remembrance of the country. You go us into this fix, and I'm going to give you one more chance to get us out of it. Don't try to think with your head let your feet think for you, and maybe they'll carry you to the right gulch if they don't—" Folsom scanned the

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brooding heavens and his lips compressed. "We're in for a storm and we'll never weather it. Take one look while there's light to see by, then turn your feet loose and pray that they lead you right, for if they don't, by God, I'll cut you loose!"

It soon proved that memory lay neither in Harkness's head nor in his feet; when he had veered aimlessly about for half an hour, evidently fearing to commit himself to a definite course, and when the wind came whooping down, rolling a twilight smother ahead of it, Folsom turned his dogs into the nearest depression and urged them to a run. The grade increased, soon brittle willow-tops brushed against the speeding sled; this brush grew higher as the two men, blinded now by the gale, stumbled onward behind the team. They emerged from the gulch into a wider valley, after a while, and a mile further on the dogs burst through a grove of cottonwoods and fetched up before a lighted cabin window.

Harkness pulled back his parka hood and cried, boastfully: "What did I tell you? I knew where I was all the time." Then he went in, leaving his partner to unhitch the team and care for it.

Friendships ripen and enmities deepen quickly on the trail, seeds of discord sprout and flourish in the cold. Folsom's burst of temper had served to inflame a mutual dislike, and as he and Harkness journeyed northward that dislike deepened into something akin to hatred, for the men shared the same bed, drank from the same pot, endured the same exasperations. Nothing except their hope of mutual profit held them together. In our careless search for cause and effect we are accustomed to attribute important issues to important happenings, amazing consequences to amazing deeds; as a matter of fact it is the trivial action, the little thing, the thing unnoticed and forgotten which bends our pathways and makes or breaks us.

Harkness was a hare-brained, irresponsible person, incapable of steadiness in thought or action, too weak to cherish actual hatred, too changeable to nurse a lasting grudge. It is with such frail instruments that prankish fate delights to work, and, although he never suspected it, the luxury of yielding to that sudden gust of passion cost Folsom dear.

Arrived finally at the Kobuk the miner examined the properties covered by his option, and impressed by the optimism of the men who had made the gold discovery he paid Harkness the price agreed upon. The deal completed, he sent the fellow back to Candle Creek, the nearest post, for supplies. Folsom's mood had altogether changed by now, so strangling his last doubt of Lois, he wrote her as he had written at Kougarak City, and intrusted the letter to his associate.

Harkness, promptly upon his arrival at Candle, got drunk. He stayed drunk for three days, and it was not until he was well started on his way back to the Kobuk that he discovered Folsom's letter still in his pocket.

Now, to repeat, the man was not malicious, neither was he bad, but as he debated whether he should back-tack there came to him the memory of his humiliation on the Imnochuck divide. So! His brains were in his feet, eh? Folsom had strangled him until he kicked, when all the time, they had been on the right trail. Harkness felt

(Continued on page 33)

BADGER BRAND SEEDS ARE INDISPENSABLE



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Silage vs. Root Crops for Dairy Cattle

By BURTON W. HOUSHOLDER

AN EFFORT to measure the relative value of oat and pea silage as compared with root crops for dairy cattle was made about two years ago by the Upper Peninsula (Michigan) Experiment Station.

It is recognized that prices prevailing at that time have materially changed; nevertheless, the comparative results should still prevail.

The purpose of these experiments was to determine some of the most productive and economic feeds. The two ideas of productiveness and economy have stood foremost in our minds in the performance of this work. Being brought face to face with the dairy situation as it confronts the dairyman has opened up to us many of his problems and made it

possible for us to work to advantage and do away with extravagant expenditures of time and money. In other words, our aim has been to get the most in return for the least expense. Because of this attitude, we firmly believe that much practical good may be derived from the results obtained. Five of the best cows in the station herd were used in carrying on this experiment.

Following are the data on the ration experiments conducted showing the amounts of material fed to each cow, the cost of each and the amount of milk produced from each method. The experiments were carried on in triplicate in 1918 and duplicate in 1919 for the purpose of getting accurate results as possible.

UPPER PENINSULA EXPERIMENT STATION—RATION EXPERIMENTS WITH DAIRY COWS—DECEMBER 25, 1917 TO APRIL 12, 1918.
December 25 to December 31, Inclusive.

Cow No.	FEED				
	Lbs. Clover	Lbs. Roots	Lbs. Ensilage	Lbs. Grain	Lbs. Milk
4	84	230	210	63	27
5	84	230	210	63	30
6	84	230	210	63	28
7	84	230	210	63	31
9	84	230	210	63	36
Totals	420	1400	1050	315	151
Feed cost per ton	\$25.00	\$5.33	\$5.16	\$56.00	
Feed cost per week	5.25	9.73	8.24	8.82	
Total feed cost					21.034
Cost per 100 lbs. of milk					1.392

February 12 to February 18, Inclusive.

Cow No.	FEED				
	Lbs. Clover	Lbs. Roots	Lbs. Ensilage	Lbs. Grain	Lbs. Milk
4	84	300	210	63	29
5	84	300	210	63	30
6	84	300	210	63	28
7	84	300	210	63	31
9	84	300	210	63	34
Totals	420	1500	1050	315	152
Feed cost per week	\$5.25	\$3.9975	\$3.234	\$ 8.82	
Total feed cost					21.3015
Cost per 100 lbs. of milk					1.3959

March 10 to March 25, Inclusive.

Cow No.	FEED				
	Lbs. Clover	Lbs. Roots	Lbs. Ensilage	Lbs. Grain	Lbs. Milk
4	84	230	210	63	23
5	84	230	210	63	22
6	84	230	210	63	25
7	84	230	210	63	31
9	84	230	210	63	30
Totals	420	1400	1050	315	142
Feed cost per week	\$5.25	\$3.731	\$3.234	\$ 8.82	
Total feed cost					1.473
Average costs taken from triplicate tests, per 100 lbs. of milk					1.42
Average yield of milk, per week					1483.

January 8 to January 14, Inclusive.

Cow No.	FEED				
	Lbs. Clover	Lbs. Ensilage	Lbs. Grain	Lbs. Milk	
4	84	315	63	30	
5	84	315	63	33	
6	84	315	63	28	
7	84	315	63	32	
9	84	315	63	35	
Totals	420	1575	315	160	
Feed cost per ton	\$25.00	\$6.16	\$ 56.00		
Feed cost per week	5.25	4.851	8.82		
Total feed cost					18.921
Cost per 100 lbs. of milk					1.179

February 26 to March 4, Inclusive.

Cow No.	FEED				
	Lbs. Clover	Lbs. Ensilage	Lbs. Grain	Lbs. Milk	
4	84	315	63	28	
5	84	315	63	28	
6	84	315	63	25	
7	84	315	63	29	
9	84	315	63	30	
Totals	420	1575	315	141	
Feed cost per week	\$5.25	\$4.851	\$ 8.82		
Cost per 100 lbs. of milk					1.394

March 5 to March 11, Inclusive.

Cow No.	FEED				
	Lbs. Clover	Lbs. Ensilage	Lbs. Grain	Lbs. Milk	
4	84	315	63	28	
5	84	315	63	27	
6	84	315	63	24	
7	84	315	63	30	
9	84	315	63	30	
Totals	420	1575	315	141	
Feed cost per week	\$5.25	\$4.851	\$ 8.82		
Total feed cost					18.921
Average costs taken from triplicate tests, per 100 lbs. of milk					1.342
Average yield of milk, per week					1.286

(Continued on page 34)

Boys' and Girls' Puzzle Problem

(A \$5 cash prize will be paid for the first and best written correct answer to this problem. Other correct answers, received after the first one, will entitle you to a full year's paid subscription to Cloverland Magazine. Address, Puzzle Editor, Cloverland Magazine, Menominee, Michigan)

The Farmers' Meeting

At a lecture entertainment given for farmers the lecturer when he arrived at the hall asked the manager of the entertainment how many tickets had been sold.

"We have sold one-third the seats," replied the manager, "but we would have filled the hall had the tickets been 25 cents each instead of 50 cents, and at the cheaper figure the receipts would have been \$50 more."

How many seats were there in the hall?

Herefords in the Hawaiian Islands

The Hawaiian Islands have seldom been regarded as having much to do with cattle breeding. Although many Hereford breeders have known that a number of registered Herefords had been purchased some years ago by Hawaiian breeders, few realized the extent of their purchases or the size of the herds maintained. Recently another shipment of 20 head, 18 bulls and two females, was sent from Kansas City, to the Raymond Ranch on Maui Island. A. W. Carter owns the largest herd and recorded 226 head in the American Hereford Record during the past year. Some of the other larger breeders include the Haleakala Ranch Company, Robt. Hinds, and H. W. Rice.

Mr. Lorrin K. Smith, chairman of the Live Stock Committee of the Second Annual Maui County Fair held recently at Kahului, Maui, T. H., reports that the exhibition not only excelled any previous show of its kind held in the territory, but that in some departments it was away ahead of many similar fairs held in the States.

SHEEP EAT RUSSIAN THISTLE

While the Russian thistle when young and tender has considerable feeding value, Andrew Boss, in charge of the Minnesota experiment station, says the thistle should not be allowed to grow. Alfalfa is much better for all classes of live stock. Farmers who are troubled by the thistle, says Mr. Boss, should turn their sheep into infested fields. Sheep will eat the thistle closely and seemingly relish its kind of pasture. North Dakota station men report that 35 head of sheep were pastured all summer on five acres of Russian thistle on the station farm at Williston.



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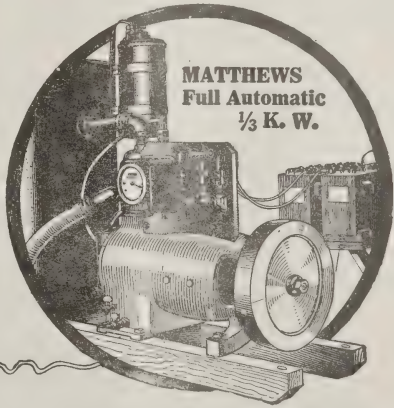
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Forestry is Vital to the National Economic Prosperity

By WARREN B. BULLOCK

Director of Forest Extension, New York State College of Forestry

ONLY he who has canoed the lakes, fished the streams, cruised the forests of the mid-west, and then seen the forest policy of the east in rapid development, can appreciate the great opportunity to develop now a policy for the prosperity of future generations.

Cloverland, at the threshold of its development, compared with the densely populated eastern states, has fifty years the jump on New York state, with conditions in many essentials the same today as New York was situated a half century ago.

The East has learned the lesson of danger in loss of forest areas, and conservative in so many respects, is a rampant progressive in the matter of forest development.

The states of Wisconsin, Minnesota and Michigan, with their forests going fast, are today where New York was half a century ago, but with the experience of New York can begin now to build for generations to come.

Forestry as practiced in the East, particularly New York state, which is vitally alive to its necessities in the forest problem, is practically unknown in the lake states, particularly Northern Wisconsin and the Upper Peninsula. It is true that the United States Steel Corporation has three Upper Peninsula forests under scientific forestry management, but this applies almost exclusively to protection from fire and care in cutting. The forest plantation of New York is almost unknown in the West. The forest plantation, however, is the salvation of the future, for acreage which should be devoted to forests. Hand in hand with the growing of crops on agricultural lands, New York state is growing a crop of trees on land which is unsuitable for agriculture, but fit for forest growth.

The mention of New York is as an example to Cloverland, of what has been learned at great cost by the East and as a suggestion to the lake states of what can be done there for the assurance of future prosperity.

New York state today produces only about \$80,000,000 worth of the \$135,

000,000 expended annually for lumber in the state. The ruthless cutting in the past of its spruce forests is the cause today of the news print paper problem of the nation, the shortage of pulp wood in America which is putting newspapers out of business, from a shortage of raw material. Green Bay, Wis., is even now the importing point for Canadian pulp wood, to fill the lack of raw material in the Wisconsin and Michigan mills, due to the disappearance of the domestic forests.

Yet in New York, the great state of the East, with its ten millions and more of population, there are, today, some seven millions idle acres, which should be growing forests. The demand, however, for pure stock is so great that all the agencies in the state for the production of young forest stock will be unable to provide the seedlings needed next spring. New York has an area of roughly thirty million acres, the acreage of Cloverland. Of this area only half is under the plow. The rest is composed of forest, cut-over lands, suitable for forest, unfit for agriculture, but unused, and a small acreage which is being brought back into a forest condition. Ten million acres are avail-

able for perpetual forest, if properly handled, and the development of this acreage will provide a wood supply for some three thousand wood-using industries. With this condition existing, New York has awakened to its needs and is doing now, what should have been started fifty years ago. Cloverland has the opportunity to profit by the errors of the East, appreciate the lessons and start now for the future of its forest lands.

Sweden in 1826 established its state college of forestry, and has handled its forests systematically since that time. New York established its state college of forestry in 1911, but is rapidly making up for lost time by rapidity of development, now that it has realized its errors of the past.

Cloverland has every element of possible development that New York possessed, and more. One need for the forest in the East, that of drinking water supply for great cities is not felt in the West, where Lakes Michigan and Superior furnish reservoirs for millions of population. But the water development size of the region exists from the side of industrial development of water power.

In the East, forestry has come to

mean more than the planting, growing and care of trees. It has come to mean the science of the forest from the seedling to the utilization of the crop in the industries, and today trained foresters are in demand in the industries, such as the wall board market, paper manufacture, even more than in work of forest planting and lumber cutting.

Forestry has three main subdivisions, or economic relations, the forest as a producer of a tree crop, just as the farm produces grain, as a water reservoir, to hold moisture for a maintained stream flow, and as a recreational field for the tourist, hunters and fisherman. And this last is by no means negligible in importance. It is difficult to give figures, but it has been said that the Northern Wisconsin and Michigan lake regions mean the spending each year of \$7,000,000 by summer resorters from the central

states, which money stays in the resort region. This is no mean industry, and is making this territory the playground of the Central states. But compared to New York's Adirondack region, it is a small income. The Adirondacks, which for summer resort purposes are not superior to the lakes of Cloverland, have resorts and a recreational industry which means probably ten times the annual expenditure by pleasure seekers of the amount spent in the Wisconsin-Michigan territory.

The forest as a producer of a crop is as vital to the economic prosperity of the state as the farm. Land should be forced to produce its share of a state's income. When the forest is cut away and nothing put back, the land is being mined and robbed of a natural resource. If the land is best fitted for forest, trees should be planted, to grow for a future crop. It is a crop just as the grain crop is a productive agency of prosperity. If the land is fitted for agriculture, the land should be developed. But every farm has an area which can be used for a forest growth, some few acres where the soil is not good for an agricultural

(Continued on page 26)



Clark Estate Pine Plantation, Cooperstown, N. Y., Where James Fennimore Cooper Based His "Leatherstocking Tales." Trees Are About 14 Years Old.



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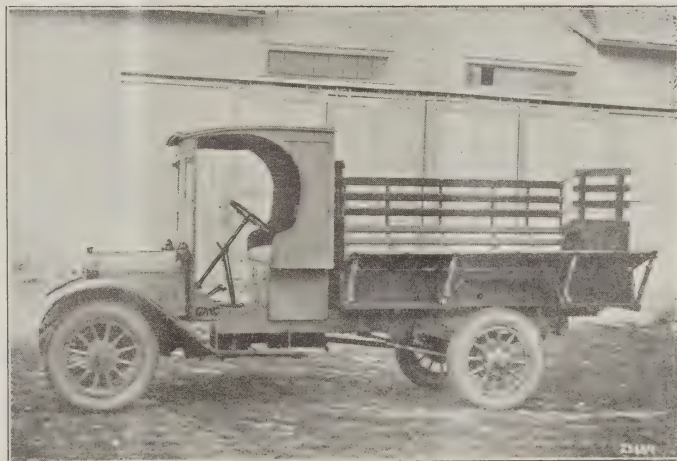
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Forestry is Vital to the National Economic Prosperity

(Continued from page 24)

crop. In the East the farmers are being taught to handle these woodlots as they are commonly called, as producing acreage. By careful cutting, groups of these woodlots are producing enough timber to keep in the vicinity the wood-working establishments which provide the timber needs of the community, at least in part. It is no small matter of importance to the forest problem in New York that the farmer is back of much of the reforestation going on.

The development of the forest as a water reservoir is evidenced particularly in the Vilas County region of Wisconsin. There, to maintain the constant flow of the Wisconsin River for power for the great mills, there are chains of lakes converted into reservoirs. But the best reservoir is the forest floor itself. A forest growth provides a spongy carpet over the gravel or rock of the sub-soil and in this sponge the water collected by the melting of the snows, or the summer rains is held until it flows away naturally, as a natural forest reservoir. With the forest gone, the evaporation and more rapid flow empties this reservoir, causing the floods of the spring, and the drought of the summer. The other day Jersey City complained of a tide. Foresters declare that this tide, which put the streets under water is a premonitory symptom of the floods which sweep away soil, destroying cities, as has been the case in Palestine, China, and older civilizations with the loss of the forests, until the country itself becomes barren desert.

But the recreational side of forestry is to be one of its greatest assets to the country. Recreational forestry is being developed today until it has been placed in a college curriculum as a course of study, for the development of trained men in this special

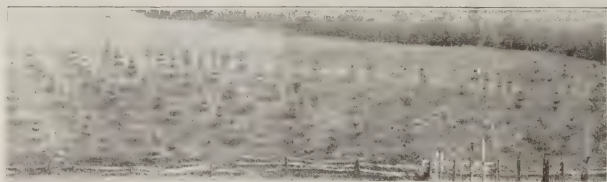


Artificial Plantation of Pine in Center Background, Surrounded by Older Trees from the Hills of Otsego County, New York's Premier Farm Bureau County.

field. The old hunter thinks the scientific handling of the forest as a recreation spot more or less of a joke. The federal government is establishing a definite policy of national parks, which are nothing else than recreational forests, and it is this phase of the Adiron-

dacks which brings untold millions of dollars into New York state each year, just as Cloverland gets its great sums from Chicago searchers for a cool summer spot, with hunting and fishing facilities.

A strange phase of recreational for-



Early Stages of a Pine Plantation, Five Year Old Trees in Otsego County

estry, not appreciated by the average American, is that it means more game than the natural forest. The public forests of Europe contain more game than the native forests of America, not because they are better protected, but because the conditions for propagation are better. The danger of annihilation by the hunter is being met in the national forests of the West by the establishment near the hunting grounds of great game sanctuaries, refuges, where the deer, the elk, the Rocky Mountain sheep may breed in safety from the hunter. Enough stay constantly to the unprotected areas to provide plenty of sport for the hunter.

The same is true of the forest itself. In a recent address before the American Pulp and Paper Association, Hugh P. Baker, dean of the New York State College of Forestry at Syracuse, told the nation's paper manufacturers that a properly conducted artificial forest would produce five times as much amount of timber that would be grown under natural conditions, exactly the same theory as that which brings greater crops of domestic corn in the fields under modern methods than is possible under the old native growing methods of the Indians.

Recreational forestry means the establishment of camp grounds on scientific lines, leasing of public forest areas for summer homes under careful restriction, and the development of trail systems which make it simple to reach any part of a forest area by carefully marked trails, which may be either automobile highways, or rough foot or bridle paths.

Cloverland, therefore, is now at a stage where it can apply to itself the lessons which New York has learned fifty years behind its time, and where the development of a great agricultural area must bear in mind that a need for a maintenance of a crop

Plow Up the Cut-Over Timber Lands

WITH

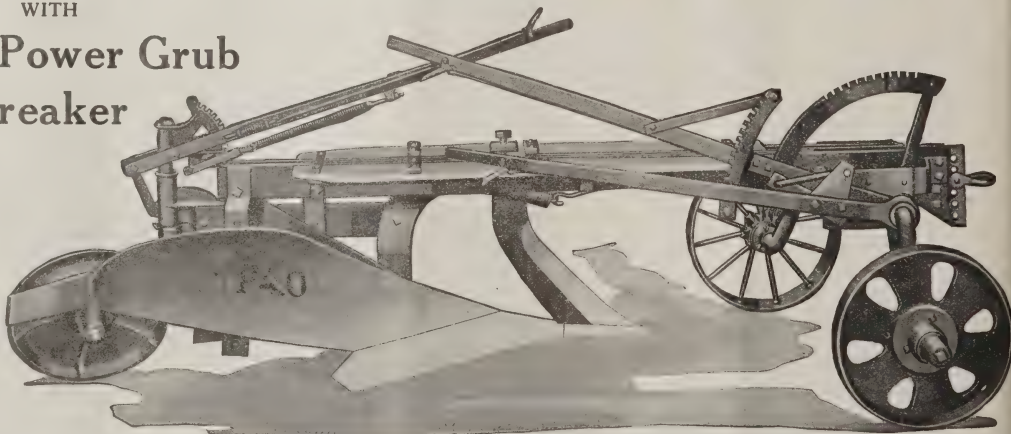
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U S A

ber to build farm houses, barns, and for the industries in general. They sent out of the state for lumber which should be produced within boundaries is an economic waste to the state. The southern states are being robbed of their great pine forests. The daily cut of the southern region is 50,000 acres a day, and this rate of cut there will soon be southern timber left for the north to buy, and it will have to fall back on either Pacific Coast lumber, or its own crops.

The chief problem in forestry, however, is the fact that the tree crop is long time problem. Fifty years is short time in which to produce a mature tree for the market, and the average individual will not consider waiting for so long a time ahead, the growing of a crop for the grandson to cut. This makes forestry a problem, except for long-lived corporations such as the United States Steel Corporation, or a matter in which the government or state must aid. The East will soon have, it is believed, laws which will relieve the private owner of taxation upon uncut trees, a deferred tax being placed upon the product when cut, thus taking away the incentive. But the public forest is coming to the front in New York state, particularly since two million and more American soldiers went to Europe and now how public forests there pay the taxes of whole villages and towns.

One typical problem put up to the New York State College of Forestry is the fall was the organization of a chain of township forests in one of the older counties of the state. Otsego County has decided—and raised a bond of \$25,000 a year for three years—to carry through this and other projects—to establish a 100-acre public forest in every one of the twenty-four townships, each forest to be one unit of a comprehensive county forest system, just as the cities of the nation pick up their parks with boulevard systems. Next spring this county will plant the first sections of four of these forests, and within two years there will be a plantation upon every township, on land owned by the township, to produce timber eventually for sale to lumbermen, at a profit to the community.

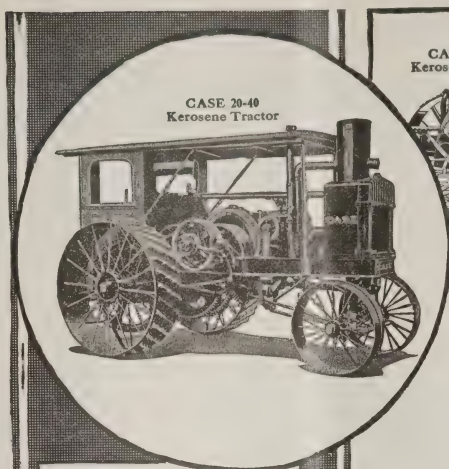
Chenango County, another southern New York county, will plant next spring the first two-acre forest of a smaller township forest in all of its twenty townships, and this like the Otsego County plantation is a farming unit, not part of the northern forest system.

Comparable to Cloverland is the northern New York Development League, formed with the chambers of commerce of eight northern counties as the nucleus. These eight counties will have for their major problem of 1920 the development of municipal forests, on the European basis, for future timber supply. These counties are the duplicates of the roughest counties of Upper Michigan, but with great natural forests adjoining them. The enormous areas of cut-over lands are planning now for the time when the remaining timber would be all gone, were it not for the development of a sentiment for forestry in New York state.

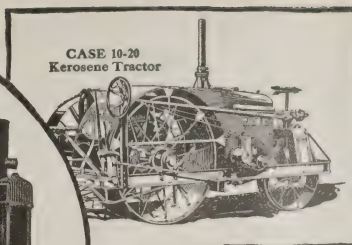
The state itself has in the Adirondacks 1,800,000 acres of forest land, with a great force of trained foresters, which is used as a recreational area, and as a water reservoir for the cities as well as for eventual water power development, for New York is looking forward now to the time when the coal supply will be so far depleted that "white coal" or waterpower, will have to be called upon for industries and even for heat.

New York is now trying to make up for lost time by rapid development of forestry program, for its past failure to appreciate the needs of the future, and its present work is offered to Cloverland as a hint for the future of the lake state region.

A striking phase of the forestry development of the East is the importation to the East of westerners to teach forestry, when the West is not itself



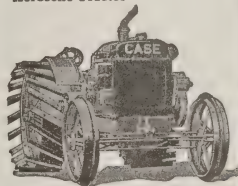
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CASE 10-20
Kerosene Tractor

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(Continued on page 32)

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The Store That Made Reedsburg

(Continued from page 10)

many customers. Even the smallest of these stores seemed to be doing a lot of business. But each time, after an hour in the streets, Eldred gravitated back to the Martin Mercantile Company's store on Main street. It seemed to be the dynamo, from which radiated Charlton's business impetus. It attracted others just as it was attracting Eldred. While he pushed his way through the crowded aisles, he reflected.

"By Jove! It's like Chicago, I might be on State Street!"

He made his way to the office of the credit manager.

"My name's Eldred—Robert Eldred—I want to open an account here. I bank with the Fourth National in Chicago; am a member of the firm of Eldred & Hardiston, and can refer you to Judge Fairhope."

"You mean Judge Fairhope of Reedsburg."

"Yes. I would like to go through the store, do some shopping, and charge my purposes. In the meantime perhaps you can make the investigation."

"Certainly, Mr. Eldred. We are mighty glad to have the account. Of course we'll investigate; that's only good business. In the meantime go right along, charge what you want to and we will make delivery just as soon as I have talked to Judge Fairhope on the telephone. I hope you will find just what you want. If you don't, come right back to me and we'll do everything we can to get it."

Again Robert Eldred smiled—but this time with a different understanding.

He began his rounds of the store. He found the clerks uniformly accommodating. Once or twice he deliberately gave them reason to be otherwise. He asked special favors that were unreasonable. But each time he was told that everything possible would be done to meet them. What-
ever he did seemed to be accepted as the prerogative of a customer.

He concluded his purchases, as he had in Reedsburg, in the shoe department. He again bought arctics and leather boots; he again asked that a buckle be reset and hob nails added; and he again explained that he was leaving town, and requested special delivery.

The clerk neither hesitated nor called the department manager.

"Certainly, sir," he said. "We'll surely have them there before train time."

Eldred saw that the department was crowded with buyers. He had every reason to believe that the repair departments, behind the scenes, were rushed.

"And yet THIS store cheerfully says 'sure,'" he meditated, "and sends me away feeling grateful."

He found the shoes, properly altered upon the hotel desk before he boarded his train for Reedsburg. That train was again crowded with shoppers. This time they were loaded down with bundles and boxes. They were the same women who had traveled northward with him that morning. It required no questioning to reach Eldred's conclusion. The entire farming community—even those within a stone's throw of the Reedsburg stores—were shopping in Charlton.

Eldred spent the next day in apparently aimless rambling about the Reedsburg streets. Toward evening he mounted the stairway leading to Judge Fairhope's office. He found the judge in his characteristic attitude, leaning back in his swivel chair, feet on the sill, and gazing abstractly into the show windows across the street.

"Hello, judge!" he said.

"-lo, Bob! Find anything?"

Eldred paced the floor.

"I find the whole rural community shopping at Charlton. They climb onto the trains in the morning and return at night. Nobody comes to Reedsburg who can possibly get to Charlton. They go there to trade

with the Martin Mercantile Company. Their goods aren't much better than Saunders'. Their stock is a little larger, but that's only because it's an active stock. It's moving all the time and so it's up-to-the-minute. But what customers DO get at Martin's is service and courtesy, and diplomatic salesmanship. Every clerk, and every department head, makes these women feel that their trade is appreciated, and that anything at all will be done to satisfy them.

"Customer's always right—is that about it?" asked the judge.

"Yes, that's it judge; the customer is always right'. Whatever she asks is the right thing to ask; whatever she wants is the right thing to want; and whatever she expects is the right thing to expect. Oh, those clerks make a lot of customers change their minds about what they want; but they do it so well that the customer hardly knows it."

"Any effect on the town?" asked the judge.

"Effect! Why that town is alive from the west limits to the river! And it's not only Martin who's doing business, but every store on every street. They may come to buy at Martin's; but women like to 'go shopping.' They spend a lot of time in the Martin store and they buy a lot of goods there. But they aren't content until they've spent a lot more time in a lot of other stores. Every one of the smaller merchants is getting some of the business. Not one of them has been harmed by the big store, nor by its big methods. The contrary is true—they've all been helped a whole lot. There's a retail section in Charlton that has grown around Martin's, and has spread down four streets, that's pretty hard to beat except in the big world-cities!"

The judge squinted over at the lighted show windows across the street.

"You b'lieve then, that if we had somethin' like Martin's over there, we might save Reedsburg from its lingerin' ailment?"

"You bet!" Eldred was emphatic. "Think mebbe a little service, coupled with a little advertising, might be the right elixir for the town?"

"I do!" Eldred was more emphatic. "Then, go to it!" And the judge blinked at the offending lights.

Within a week certain property on Main Street, in Reedsburg had changed hands. In almost less time than seemed possible, a building was completed. Stock arrived before the paint had dried, and a sales force was installed as promptly. The local papers and farm journals announced the opening.

Country people were skeptical. They came slowly; but each one or two, that spent a day in the Eldred store, brought many times the number with them on the next visit. Service and courtesy was as complete as the stock. Many retail store refinements, known only to the largest cities, were introduced. They were begun in a modest way but they were complete. For instance, the woman shopper from the country found a rest room for her use. It was on the upper floor and took up valuable sales space. Nevertheless there were comfortable chairs and tables, inviting relaxation. Nearby was a wash room, of clean white enamel, and refreshing in its suggestion of soap and water after a dusty trip.

There was a little check room for grips and suit cases; and at the transfer desk purchases from various departments were gathered and wrapped with especial thought for the traveling customer's convenience.

In the store was a restaurant quite as complete as any in Reedsburg. Robert Eldred didn't believe it would pay; but he argued that it would help attract the country woman and help to hold her trade. And it so proved.

In fact, the Eldred store was complete. A woman might enter it in the

morning and remain until night, and find her every want provided for.

But strange to say, she never did just this. She used the restaurant, the rest room, and the other facilities. But she always managed to get an hour or two for shopping in the other stores.

Within eighteen months Saunders was out of business. Saunders, however, was the only merchant who suffered. The business of every other retailer was immensely increased. The streets no longer resembled drive-ways in the cemetery. The Eldred store had made Reedsburg.

One spring morning Judge Fairhope jogged comfortably down Main Street. He threaded his way between rows of autos, and farmers' teams, that lined the curbs. Near his office, where the sway-backed horse was want to dose, truck was discharging its load.

In whimsical dismay, the judge fruitlessly sought a place to tie. Then he clucked to the horse and drove round into the alley.

"I do b-lieve I've done myself out o' a hitchin' post," he chuckled.

Dairy Cow-Sense

(Continued from page 4)

possible. Feeds grown on the farm are much cheaper than those which are purchased.

Corn silage should always be part of the dairy cow's ration, except when the cow is on rich pasture. Corn silage, however, is not a balanced ration. Some grain and hay should be fed with it. From thirty to forty pounds of silage a day, fed in two feeds, will be sufficient for a cow, unless she is a very large animal.

Timothy has its uses, but much better feeds can be found for milk-producing cows. Alfalfa, clover, cowpea hay, vetch hay, soybean hay, and velvet bean hay are crops, one or more of which are adapted to most localities, which furnish the most desirable roughage for dairy cows.

The greatest mistake we make, next to feeding "scrub" cows, is the "scrub" feeding of good cows.

The combination in which corn silage will be used in feeding milch cows will depend a good deal on local conditions; it may be said in general that it should be supplemented by a fair proportion of nitrogenous feeds, like clover hay, wheat bran, ground oats, linseed meal, gluten feed, cottonseed meal, etc. As it may be of some help to our readers, a number of balanced rations, or such as are near enough balanced to produce good results at the pail, are presented below:

No. 1—Corn silage, 35 pounds; hay, 10 pounds; wheat bran, 4 pounds; ground oats, 3 pounds; oil meal, 2 pounds.

No. 2—Corn silage, 50 pounds; corn meal, 10 pounds; corn meal, 2 pounds; wheat bran, 4 pounds; malt sprouts, 3 pounds; oil meal, 1 pound.

No. 3—Corn silage, 40 pounds; clover and timothy mixed, 10 pounds; heat shorts, 3 pounds; gluten feed, 3 pounds; corn and cob meal, 3 pounds.

No. 4—Corn silage, 20 pounds; corn meal, 10 pounds; hay, 4 pounds; gluten meal, 3 pounds; ground oats, 3 pounds.

No. 5—Corn silage, 40 pounds; clover hay, 10 pounds; oat feed, 4 pounds; corn meal, 3 pounds; gluten feed, 3 pounds.

No. 6—Corn silage, 45 pounds; corn meal, 5 pounds; oat straw, 5 pounds; tied brewers' grains, 4 pounds; wheat shorts, 4 pounds.

No. 7—Corn silage, 35 pounds; hay, 10 pounds; corn meal, 3 pounds; wheat bran, 4 pounds; oats, 3 pounds.

No. 8—Corn silage, 40 pounds; corn meal, 3 pounds; wheat bran, 4 pounds; gluten meal, 2 pounds; oil meal, 2 pounds.

No. 9—Corn silage, 20 pounds; clover and timothy hay, 15 pounds; corn meal, 3 pounds; ground oats, 3 pounds; linseed meal, 2 pounds; cottonseed meal, 2 pounds.

No. 10—Clover silage, 25 pounds; corn stover, 10 pounds; hay, 5 pounds; wheat shorts, 2 pounds; oat

feed, 4 pounds; corn meal, 2 pounds.

No. 11—Clover silage, 30 pounds; dry fodder corn, 10 pounds; oat straw, 4 pounds; wheat bran, 4 pounds; malt sprouts, 2 pounds; oil meal, 2 pounds.

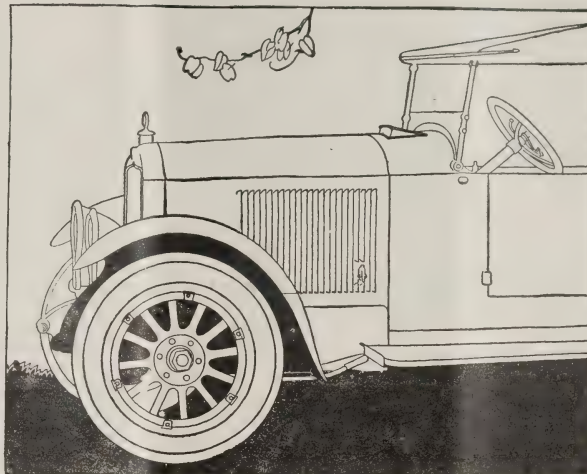
No. 12—Clover silage, 40 pounds; hay, 10 pounds; roots, 20 pounds; corn meal, 4 pounds; ground oats, 4 pounds.

19,859 "BACK TO THE FARM" STUDENTS

According to a report just issued by the Vocational Summary, it appears that the back to the farm movement has started in earnest.

The report states that 19,859 pupils over the country were enrolled in agricultural subjects in vocational schools during 1918 and 1919.

The report further states that this is an increase of 4,442 students being trained in this subject. It is interesting to note that this is only the second year in which practical instruction of this sort has been within reach of the average child of school age.



THE NATIONAL SEXTET IS BUILT IN FIVE CUSTOM BODY STYLES

It has taken us twenty years to produce the National Sextet Motor. We believe it to be the finest six cylinder engine that has yet been produced. And there are many experienced motorists who concur with us thoroughly in that belief.

NATIONAL MOTOR CAR & VEHICLE CORPORATION
INDIANAPOLIS, INDIANA
Twentieth Successful Year

J. H. VERNET COMPANY
DISTRIBUTORS
MENOMINEE, MICHIGAN

Menominee Saw Co.
Menominee Michigan

MANUFACTURERS OF

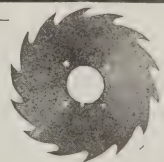
SHINGLE
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GANG
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SAW REPAIRING OF ALL KINDS





The Warmth of Real Wool

Plus the wearing qualities of real workmanship make

Northwoods MACKINAW'S

SUPREME in cold-weather comfort

JUMPERS · SHIRTS · PANTS

Colors Oxford Gray and Fancy Plaids

For the Outdoor Man

MCINTYRE-BURRALL COMPANY
GREEN BAY, WIS.

Everwear



Out of Doors—

Conducted by A. N. WALLACE

USING THE COMPASS

ONCE, when Bill and I went hunting near the Canadian line, we strayed into a marsh, got tangled up in the underbrush, and before we realized it, were lost.

Then we found that neither of us had a compass. But we were "wise guys." We knew all about how the moss grows on the trees, and where the sun ought to be, and a lot of other things. The only trouble was that we couldn't find any moss, and that a curtain of clouds hid the sun. For a lot of reasons the "other things" we knew wouldn't work, either. So we tramped around all day and until two o'clock in the morning before we struck a trail that finally took us back to the lake.

That's why we have read with a lot of interest, some suggestions on the compass, by W. L. Marble. Here they are:

Few people realize, until they happen to experience the sensation of losing all sense of direction, the necessity of carrying a compass. Experienced sportsmen often go into dense woods with which they are unacquainted, relying entirely on their own ability to find their way out. Often they are compelled to spend a night out of doors, and occasionally they become exhausted and die from exposure.

From this it may be readily seen that a compass is a necessity, and in selecting a compass, care should be taken to choose a good one. This does not necessarily mean an expensive one, but one that will always point the right direction. Pick one of a convenient size—from three-quarters of an inch to an inch and a half in diameter.

The best compass to choose is one with an arrow shaped needle. Some are made with both ends of the needle alike, the north end being painted blue, the south end polished, but this is confusing.

Choose a compass that has a needle with an agate bearing or jewel firmly set in the brass cap and accurately balanced on a finely tempered and pointed pivot. The needle should be thoroughly magnetized and vibrate sensitively at the least change in the position of the compass box. A needle that vibrates rapidly and easily always points right when it settles, but one that vibrates slowly and settles quickly is liable to be off a few degrees when it settles, making it inaccurate.

Some firms make a compass with a stop—a little lever presses the needle against the crystal when the cover is put on, or on an open face compass it may be set by hand. In most of these, the disadvantage lies in dirt and dust penetrating the box through the stop mortise, interfering with the free working of the needle.

By all means make certain the compass box is water-proof, for if moisture gets under the glass you are worse off than without a compass, as the needle will stick to the glass until it has been thoroughly dried. I have a vivid recollection of an experience in a driving snow storm late one afternoon—all three of my compasses had collected moisture and I was compelled to stop and build a fire to dry them, being miles away from camp.

Do not choose a compass that cannot be taken apart for adjustment without injuring the crystal or flange. The extreme point of the post frequently becomes dulled, broken or slightly bent over. The point may be sharpened with a fine whetstone and made as good as new if the compass

can be readily taken apart. If you are in a locality where you could not buy a new one this convenience would be worth much to you.

On a trip into the woods or hunting grounds alone where a compass is a necessity, it is advisable to carry one, preferably two extra ones, because accidents frequently occur to damage them. A bit of precaution may prevent a lot of regret.

Before going into unfamiliar territory when you must use a compass, a map showing the topography of the country may be secured from the state land office, the county seat or the United States land office, showing the location of roads, swamps, hills, streams, lakes, etc. This will be a great help to you. On this map mark the location of your camp which will probably be on a road, stream or lake. Then when you hunt north of it you will merely have to go south to get back or if you work northeast, to return you must go southwest. A pedometer is of great assistance as it shows one how far he has gone in the different directions.

An easy way to lay a fairly accurate course is to hold your compass in both hands at half arm's length from the body, with the elbows resting against your sides, thus bringing the compass in direct line with the center of your body. To settle the needle quickly tip the compass until the end of the needle touches the glass, thus checking the vibration. Repeat this quickly two or three times as the needle is passing the center of the arc it is making. Carefully level the box and as soon as the needle stops vibrating take a sight on some object in exact line with your course, and as far ahead as you can see. Walk to it and repeat the operation. Soon you will be able to run quite an accurate line. Bear this in mind—consult your compass often. Men often swing so far from their course in going only a short distance that they doubt the accuracy of their compass. Let me tell you of an experienced woodsman I know who made three complete circles one cloudy afternoon in territory with which he was so familiar that he did not consult his compass, so sure was he that he could keep a direct course to his destination. Never afterward did he rely entirely on his sense of direction, and this experience has taught him to consult his compass often.

I trust that this little message will tend to increase your reliance on the compass. Become familiar with it and when you go into the woods you will not have to place so much dependence on others of your party who may be more familiar in that locality. Besides it will give you confidence to explore sections that you might never visit otherwise. Consult your compass often.

AN IDEAL POULTRY LEG BAND

Many poultrymen and farmers use colored or numbered leg bands whereby poultry records of various kinds are kept.

Recently celluloid, pyralin or some similar material has been tried for leg bands with excellent results. They are to be had in all colors and are made in the shape of a key ring, easily fitted on the chicken's leg.

It cannot rust, and never cuts nor chafes the leg.

Many dealers in poultry supplies report that these new bands are becoming popular with the trade.

The Lure of Cloverland's Forests & Streams

B'RER RABBIT

BILL came over to my house; it was surely snowing some! He said: "Don't make any plans for New Year's day; we'll leave the dogs at home this time, but you and I are going rabbit hunting."

I didn't fall in, any too warmly, with the idea, but on New Year's day Bill was at the house before I had finished breakfast. He had a man with a cutter, to drive us to what we call The Notch in the Bluffs.

We began the hunt three and a half miles back, in a long strip of brush, and traveled about half a mile before we picked up a track. That led us over the hill, so I wouldn't follow it. Bill said HE would, if it took him a mile. He started, and by and by I heard him shoot twice. I knew he'd missed; because when Bill don't connect the first time, on a cotton-tail, I've never seen him hit with the second barrel. He believes in giving B'rer Rabbit a fair start and a long lead.

Well, I just waited, knowing that the bunny would cross the hill. I didn't have long to wait, and say!—that rabbit was sure going some! He passed me at about forty yards. A load of number fives rolled him over.

We kept on, along the edge of the marsh, but failed to strike another track. We tried a patch of woods with no better success. We hunted every good looking thicket or brush, but failed to find a thing. The rabbits had either been hunted to death, or else were in the open fields. I made up my mind to try a clover meadow. There were a great number of tracks. I started one, and got him at about fifty yards. I was going over to pick him up when Bill again fired two shots, and a moment later two more. He was about a quarter of a mile south of me and hunting along the edge of a cornfield where the shocks were still standing. I worked my way down the meadow towards him. He again shot twice. I began to think he must have started a flock of them.

It proved that he was having a fine time; shooting, but not hitting anything. And say, was he sore! He had had four shots, and had missed every time. I know that Bill can shoot. This wasn't like him. So I slipped a couple of shells from his gun and put in two of mine. Then I loaded my own gun with Bill's shells. We went on, down that cornfield, tracking rabbits across and back; sometimes away out into the meadow, then back to a corn shock, where we'd find them sitting as nice as could be.

I had the next chance, and missed with two shots. Bill killed, at a long shot of about fifty-five yards, and killed with the first barrel. Then I knew. His shells carried an old duck load that had been wet, and were slow in firing. I kidded him some about his bum shooting, but it wasn't long before he, too, knew the cause. He said

that if I'd give him four shells, he'd get four rabbits—making his limit. (Five a day is the limit in this (Walworth, Wis.) County).

We started for another cornfield, about a half mile away. We just walked up and down the rows, giving each shock a kick. We were out 'a luck! We kicked around half the field before we startled a single rabbit. Then Bill got three in about three minutes. He did it with three shells. I began to think he was going to make good his boast. I started two, and got 'em both, but had to use a second shot on one. So it was a tie score, and each had one more to get to make his limit.

We hunted the rest of the day without starting a thing. So we started for home by the nearest cross country route. About a mile from town we came to an old stone quarry. The bottom was covered with rabbit tracks. The sides had grown up with tall weeds. A fine place to turn a dog into, but next to hopeless without him. I started a large stone rolling down the banks. Out came a rabbit! Bill and I cut loose at the same time. So close together did we shoot that neither of us knew the other had fired. The rabbit dropped, and Bill started after him.

"I guess I trimmed that one!" he said.

"I guess you did NOT. I killed him myself!"

Bill looked up kind 'a queer, and said:

"Say, old Leatherstocking, you didn't even shoot!"

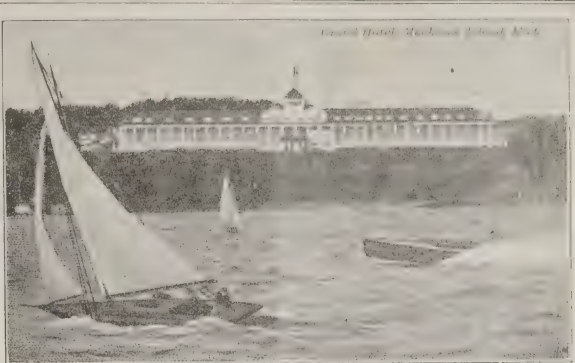
He walked up to Mr. Rabbit, made a long and silent examination, and then looked up again, more queerly.

"This here rabbit," he said, "won't even make good sausage meat. He ruined himself forever when he ran into the cross fire from two loads of number fives."

Bill says he made good; he killed four rabbits with four shots; and it wasn't any fault of his if I messed around, cluttered up the view with buckshot an' hashed perfectly good rabbit meat after it had been duly and entirely killed. He said I probably used a Maxim silencer, and shot that bunny after he had killed him dead.

Our hunting has ended until next fall. Then, someday, Bill will tell me to limber up, and get ready for the little Green-winged Teal. That will be our first shooting next season—and a real sport it sure is!

The farmer who talks about "my woman," is running the old place on a cave-man basis—with brawn but darn little brain; when he begins to say "my wife," there's evidence that a real partnership has been established, and the banks can begin to loan him money with a fair degree of safety.



Mackinac Island

The
Summer Resort
of America

The art work of nature, Indian legend, and panoramic scenes that have made history in time of war and in time of peace all blend in harmonious welcome to tourists entering Cloverland through the southeast gateway, or bid adieu to the traveler after a sojourn at the wonderful Mackinac Island.

The island is justly famed for its scenery. The heights command views of sea and shore, ever changing with the varying lights and shades of the hours and the movements of passing ships. Well kept roads—thirty miles of them—lead in various directions from the village, through the woods, amid curious rock formations, now along the edge of the bluff with vistas of the lake, and again to some open outlook, whence the panorama is bounded only by the limitations of vision. There are glens and ravines innumerable; open spaces which were the ancient gardens of the Indians; and delectable parks, whose clumps of shrubs and trees are so effectively arranged that one at first thought credits the artistic effect to the skill of the landscape artist rather than to the caprice of nature.

WRITE OR WIRE FOR RESERVATIONS

GRAND HOTEL COMPANY
MACKINAC ISLAND, MICH.

LOGAN BALLARD, President CHARLES A. HOLDEN, General Manager



THE MORTON HOUSE

A Comfortable Hotel

GRAND RAPIDS, MICH.

Headquarters for Northwestern Visitors
in Grand Rapids

EUROPEAN PLAN

J. BOYD PANTLIND, President

Want a TRADE MARBLE'S MARK Sportsman's Specialty?

THE CLOVERLAND MAGAZINE wants the men and boys on every farm—and in every town, for that matter—to become thoroughly interested in its Out-Door Section.

It wants additional subscribers interested in Out-Door Life.

Send us one subscription—your own or your neighbor's—and \$2.75, and we will send the magazine for three full years, AND you may have your choice of any one of the wonderful Marble specialties for sportsmen, described in the advertisement on the next page (except numbers 1, 14, 16, 17, and 22). In other words, we offer the Magazine for three full years—value \$3.00—and a Marble specialty—value up to \$2.00; a total of \$5.00—all for \$2.75. If you get a subscription other than your own, you can pick out one of these real outdoor treasures without the expenditure of a cent!

You can repeat this as often as you wish; send two subscriptions, and \$5.50, and get two Marble specialties; and so on. If you want specialties number 1, 14, 16, 17, or 22, send two subscriptions instead of one.

THINK IT OVER! The MARBLE Specialties are known from coast to coast as among the finest in their line. So act NOW! Get what you want by filling out the blanks below.

CUT OFF HERE

CLOVERLAND MAGAZINE, Menominee, Mich.

I enclose \$_____ for _____ three-year subscriptions. Mail the Magazine to:

NAME _____

STREET and NO. _____ R.F.D. _____

TOWN _____ STATE _____

NAME _____

STREET and NO. _____ R.F.D. _____

TOWN _____ STATE _____

Send me, prepaid, and at once, MARBLE Specialties No. _____ as described in the MARBLE ad.

NAME _____ ADDRESS _____

CARE OF FIREARMS

MOST of us have put away our guns for the balance of the season. How many have given a thought to the proper care of these guns?

The price of guns is high. We ought to take care of those we have.

It is true that the last time we used the gun we brought it in from the barn and stood it back of the stove to dry out. After supper we ran a rag or two through the barrel and squirted a little Three-In-One oil into its parts. We let it go at that.

But that isn't enough. A good gun, to be kept a good gun, should be overhauled at least once every season. Every hunter should be able to take his gun apart, and put it together again. When I say take it apart I mean take it ALL apart, so that every piece can be examined. Only so can one learn what each part is for, and what duty each performs.

Suppose, for instance, you were on a week's hunting trip and were several miles away from the nearest town. Something went wrong with your gun, making it useless. This often happens. Now, if you are able to dismantle your gun, you can, in most cases, fix it yourself unless a part is actually broken. Even then you can often use the gun by removing the broken parts. I remember breaking a firing pin, while sitting in a duck blind. The birds were flying well. I used pliers and made a pin from a shingle nail. This worked for the time being, where otherwise I would have lost some fine shooting.

Now then, to get to the point: Some evening, take your gun—either shotgun or rifle—and start taking it apart. First, take an old newspaper or a cloth and spread it on the table to lay the parts on. Then use a screw-driver on every screw you find. As you place the different pieces on the table, note what each was for, and how it worked with other parts. And figure out what

would happen if one of them got broken. You have all the parts spread out before you, clean each one carefully, removing gummed grease with gasoline, when necessary. Then make an examination of each piece; see if there is any unusual wear; if you find any, order a replacement at once, through your local dealer; it sometimes takes a long time to get them.

If all parts appear to be in a good condition soak a rag with some good, light oil, and carefully give each piece a light coating. One should be careful not to use a heavy oil; it is liable to gum, or stiffen, in cold weather.

Now for the inside of the barrel a heavier oil can be used, because that will be wiped out before the gun is again fired. I find that the best oil for this purpose, for either shotgun or rifles, is vaseline. I usually take about two teaspoons full, melt it, soak a rag in it while it is hot, and apply it at once. Give the barrel a good coating of it. It will harden almost as soon as it touches the cold barrels, and thus make a fine protection against rust or dust. It can readily be removed by running two or three dry rags through the barrels.

If these attentions are given once or twice each year, a good gun will last almost a lifetime, and you will seldom if ever, be troubled with gummed or broken parts. If you haven't in past years, given your gun this care, stop and think of the number of times you have had some minor trouble, when you wanted that shot very badly. Perhaps the firing pin was gummed or the hammer didn't hit hard enough; or perhaps the extractor was badly worn and wouldn't throw out the empty, so you could reload quick, for a second shot. There are a hundred things of this kind that can, and do, happen. So let's overcome them by having our firearms in first class condition for next season. We'll then know what we can fairly expect of them.

NUT TREES TO BORDER ROADS

Within 50 years Michigan will become one of the leading nut growing states, according to members of the forestry department at the Michigan Agricultural College. The movement for improving highways will be one of contributing causes for expansion of the nut growing industry. The Michigan State Highway Department has asked for recommendations of kinds of trees to plant along the improved roads in Michigan. The question was put to the State Board of Agriculture asking whether it would be advisable to plant fruit trees along the principal routes of the state. The board failed to recommend fruit tree planting, but advised nut tree planting.

Nut trees are not easily injured by pests and disease, it was pointed out, and the majority of them cast a denser shade than the fruit varieties. The species of nut trees recommended are black walnuts, shag-bark hickories, butternuts and chestnuts. English walnut, the biggest commercial variety on the market, may be acclimated to Michigan, the board believes. At a recent convention of the Michigan Nut Growers' Association at Battle Creek the fact was brought out that there are two trees of English walnut growing in Michigan at present. One is located near Grand Haven and the other near Monroe.

Forest Fire Losses

That the timber actually burned is only part of the loss to a community from forest fires, the destruction of soil fertility by the fires being of tremendous economic importance, is the opinion of Dr. M. M. McCool, head of the Soils Department at the Michigan Agricultural College.

"While the loss of timber itself is extremely important when forest fires pass over a section, there is another and less apparent loss which, from many points of view, is of even greater economic importance. I refer to the destruction of soil fertility.

"A great deal of humus is destroyed when fires pass over these regions. The loss of nitrogen, an extremely important and expensive element of plant food, reaches several hundred pounds an acre in some of the burned-over areas. Naturally, the value of these lands for agricultural purposes is tremendously reduced, if not practically destroyed."

This suggestion of the far-reaching effects of forest fires emphasizes the need for increased effort in the annual battle against the fires which menace and sometimes sweep over vast areas of timbered and cut-over sections of the Great Lakes basin.

Forestry Vital to National Prosperity

(Continued from page 27)

using these men for its own future. Dean Baker of the New York State College of Forestry at Syracuse is the son of a St. Croix River lumberman of the days of Wisconsin white pine. Many of his faculty are from Michigan, graduates of the University of Michigan, and the best work done in America last summer in fighting the blister rust, the pest which threatens the remainder of the nation's white pine, was done by Prof. John W. Stephen, graduate of Michigan, husband of a Wisconsin woman, in western Wisconsin, in the Polk and St. Croix regions. Professor Stephen, trained in the West, went East to become professor of silviculture in the College of Forestry, teaching lessons learned in the West, but applied in the East and not to any great extent in the states where he was himself trained. This is typical of the entire eastern forestry campaign, western bred but applied in the East, and ignored in its birthplace.

The North Wind's Malice

(Continued from page 21)

flash of rage, like the flare of loose unpowder, and in the heat of it he wrote the letter to atoms. It was a womanish, spiteful thing to do, and he regretted it, but later when he rethought the husband he lied circumstantially and declared he had given the missive into the hands of the mail-carrier on the very hour of his departure. By this time, doubtless, it was early to Nome. Soon thereafter Harkness forgot all about the incident.

Folsom was a fast worker. He hired men and cross-cut the most promising claim. Bed-rock was shallow, and he soon proved it to be barren, so he went to the next property. When he had prospected this claim with no better results than before he wrote his letter confessing the fear that his winter's work would be wasted. Again he let it be run as it would; the letter he gave to a neighbor who was leaving for Candle Creek in the morning.

Folsom's neighbor was a famous "pusher," a seasoned, self-reliant man, thoroughly accustomed to all the hazards of winter travel, but ten miles from his destination he crossed an ice-deep overflow which rendered the sleds of his muk-luks slippery, and ten yards further on, where the wind had laid the glare-ice bare, he lost his footing. He fell and wrenched his ankle and came hobbling into Candle half an hour after the monthly mail for Nome had left.

Three weeks later Folsom wrote his letter for the third time, and again a month after that. All three letters reached company in Candle Creek; for meanwhile the mail-man's lead dog had been killed in a fight with a big malamute at Lane's Landing, causing the owner to miss a trip. Now dog-fights are common; by no logic could he attribute weighty results to the loss of a sixty-pound leader, but in this instance it so happened that the mail-carrier's schedule suffered so that his contract was canceled.

Meanwhile a lonely woman waited anxiously in Nome, and as the result of a stranger's spite, a wet muk-luk, and a vicious malamute her anxiety turned to bitterness and distrust.

It is never difficult to forward mail to the north for every "musher" is a postman. When news came to Candle Creek that the Government service had been discontinued the storekeeper, one end of whose bar served as post-office, sacked his accumulated letters and intrusted them to some friends who were traveling southward the morrow. The trader was a busy man, but he loved to gamble, so when his friends offered to bet him that they could lower the record from Candle to Nome he went out into the night, sniffed the air and studied the stars, then laid them a hundred dollars that they could not.

Excited to recklessness by this war the volunteer mail-men cut down their load. They left their stove and tent and grub-box behind, planning to make a road-house every night except during the long jump from the Innaruck to Crooked River.

(TO BE CONTINUED)



Specialties for Sportsmen

Double the pleasures of outdoor life by using only good reliable equipment. Marble Specialties are quality goods that induce genuine pride of ownership. They are used and endorsed by world famous hunters, fishermen, and outdoor people everywhere. The name Marble on a hunting knife, axe, etc., means as much as does "Sterling" on silverware. "Marble" is the "buy word" with sportsmen who know good equipment.

Every article that bears our trade-mark is fully guaranteed. It will give you keen satisfaction and long service.

If your sporting goods dealer doesn't sell Marble's Specialties send your order direct to us and we will see that you are supplied.

No. 1—Marble's Flexible Rear Sight. Stem is not rigid, but is held by a spring, which gives, in case sight is accidentally struck. Prevents breakage. Two discs furnished—different sizes. \$3.60.

NOTE.—When ordering sights direct from us, always mention make, model and calibre of rifle they are intended to fit.

No. 2—Marble's Improved Front Sight. Ivory or gold bead—1-16, 3-32, or 1-3 in. Fine for running or snap shots. Used by many professionals who do fancy shooting. \$1.10.

No. 3—Marble's V-M Front Sight. Gold face and gold-lined aperture. Many experts prefer it to a bead sight. \$1.65.

No. 4—Sheard Front Sight. Gold bead. Shows up well in dark timber—will not blur. Shows same color on all objects. Type shown is for rifle. Also made for many revolvers. \$1.65.

No. 5—Special Sheard Sight for Winchester 1894 Carbine. \$1.65.

No. 6—Marble's Duplex Sight. Combines "fine and coarse" sights in one. Makes snapshots, sure shots. The 1-8 in. white enameled bead folds down when the 1-16 in. gold bead is being used. \$1.65.

No. 6A—Marble's Duplex Sight showing enameled bead in use.

No. 7—Marble's Standard Front Sight with 1-8 in. ivory or gold bead. Can also be furnished with 1-16 or 3-32 bead. \$1.10.

No. 7A—Marble's Standard Front Sight with 1-16 in. ivory or gold bead. Can also be furnished with 3-32 or 1-8 in. bead. \$1.10.

No. 8—Marble's Waterproof Match Box needed by every soldier, hunter, camper. Guaranteed moisture proof. 55c.

No. 9—Marble's Pocket Compass—Polished brass case. Agate bearing. Guaranteed accurate—\$1.00. With revolving dial. \$1.40.

No. 10—Marble's Cost Compass. Attaches to outside of coat or shirt. Always in sight. Balances so readily, direction can be taken while walking. \$1.25. With revolving dial. \$1.65.

No. 11—Marble's Clasher Gaff. Humane—doesn't rip nor tear. Holds any fish ¼ to 20 lbs. Quicker, surer than landing net. \$1.10.

No. 12—Marble's Folding Fish Knife. Cuts, rips, scales. Blade folds into handle. Locks when open. Carried in pocket. \$1.50.

No. 13—Marble's Auxiliary Cartridge. Permits target practice and small game shooting with big game rifles at little expense. .22 and .32 pistol cartridges.

No. 14—Marble's Expert Knife. Thin, keen, high grade steel blade especially adapted for dressing skins and furs. Leather handle—aluminum tip—blade 5 inches—weight 3½ oz. (Sheath included). \$2.50.

No. 15—Marble's Woodcraft Knife. Combines the good features of all hunting knives. Adapted for sticking, staining, cleaning, slicing. Biggest value on market. Blade, 4½ in.; laminated leather handle, 3½ in.; aluminum tip; weight, 5 oz. (Sheath included). \$2.00.

No. 16—Marble's Ideal Hilt Knife. Blade of finest cutlery steel. Stag handle. (Sheath included). 5 in. blade, \$3.25; 6 in., \$3.50; 7 in., \$3.75; 8 in., \$4.00.

No. 17—Marble's Ideal Knife. Laminated leather handle. (Sheath included). 5 in. blade, \$2.75; 6 in., \$3.00; 7 in., \$3.25; 8 in., \$3.50.

No. 18—Marble's Nitro Solvent Oil. Best for guns, rifles, fishing reels. Cleans, lubricates, polishes. Never gums. Dissolves residue of all black and smokeless powders. 2 oz. bottle 25c. 8 oz. can, 50c.

No. 19—Marble's Rifle Cleaner. Brushes of softest brass gauze, on a spiral spring core, which forces brushes to follow twist, rapidly cleaning out all lead, copper, rust or powder residue. State calibre wanted. 55c.

No. 20—Marble's Jointed Rifle Rod. Brass sections—steel joints—swivel tip—wood handle. Solid as a one-piece rod. Jagged and slotted detachable tips and canvas case included. All calibres. .22 to .50. Lengths, 22 to 34 in. State length and calibre wanted. \$1.10.

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Silage vs. Root Crops for Dairy Cattle

(Continued from page 22)

January 22 to January 28, Inclusive.

Cow No.	Lbs. Clover	FEED		Lbs. Grain	Lb. Milk
		Lbs. Roots			
4	84	827		32	2
5	84	837		57	3
6	84	942		62	2
7	84	1215		63	3
9	84	1220		63	3
Totals	420	5241		277	13
Feed cost per ton	\$25.00	\$ 5.33		\$56.00	
Feed cost per week	5.25	13.967		26.86	
Total feed cost				26.973	
Cost per 100 lbs. of milk				1.689	

January 29 to February 4, Inclusive.

Cow No.	Lbs. Clover	FEED		Lbs. Grain	Lb. Milk
		Lbs. Roots			
4	84	833		26	2
5	84	833		57	3
6	84	833		63	2
7	84	1253		63	3
9	84	1260		63	3
Totals	420	5012		272	15
Feed cost per week	\$5.25	\$13.36		\$ 7.616	
Total feed cost				26.226	
Cost per 100 lbs. of milk				1.7152	

April 2 to April 8, Inclusive.

Cow No.	Lbs. Clover	FEED		Lbs. Grain	Lb. Milk
		Lbs. Roots			
4	84	585		63	2
5	84	585		63	2
6	84	585		63	2
7	84	585		63	3
9	84	585		63	3
Totals	420	2925		315	15
Feed cost per week	\$5.25	\$7.795		\$ 8.82	
Total feed cost				21.865	
Cost per 100 lbs. of milk				1.541	
Average cost taken from triplicate tests, per 100 lbs. milk				1.662	
Average yield of milk, per week					15

Conclusion to be drawn from these trials are:

That to produce 100 lbs. of milk, it cost—

\$1.42 when feeding clover, roots, ensilage and grain.

\$1.28 when feeding clover, ensilage and grain.

\$.14 less than the combination.

\$1.662 when feeding clover, roots and grain.

\$1.28

\$.382 less than roots alone.

Or that milk was produced at 14 cents less per hundred pounds by feeding clover, ensilage and grain than it was when feeding clover, roots, ensilage and grain; that it cost about .382 cents more to produce 100 pounds of

milk when clover, roots and grain were fed than when clover, ensilage and grain were fed; that the cow kept up on their milk flow when 40 pounds of roots per day were placed by 15 pounds of silage and that they did equally well on 4 pounds of silage per day as they did on an average of 14.6 lbs. of roots per day, or it took about 3 1/4 lbs. of roots to equal 1 lb. of silage in milk production.

In this experiment, the cows were kept on as constant a grain and hration as possible. However, it will be noted that two of the cows, numbers 4 and 5 would not consume the same amount of grain when fed roots as they did when being fed silage and roots or silage alone; but, the other three head did consume the same amount of grain and other feed which made it possible to draw the above conclusions and did not destroy the experiment in finding out which was the most economical succulent feed.

The grain fed consisted of a mixture of 4 parts bran, 2 parts ground oats, 2 parts ground corn, 1 part meal and 1 part gluten meal. The silage was made from oats and peas ensiled when the oat grains were just starting to show signs of ripening, in a doughy stage of maturity with the straw still green.

A period of seven days was taken to change the cows from one feed over to another. During this change the ration fed on a completed test was gradually reduced until none of it was used and, at the same time the ration to be tested was gradually increased until the cows were on full feed of it. The cows were in excellent physical condition at the time of starting the experiment and remained so throughout its duration. Not one of them went off feed at any time, which further leads one to believe the results more conclusive.

The prices quoted on the roots and ensilage are the averages taken from quotations furnished me by three leading agricultural colleges in the middle west. The price covering the value of grain was taken from the average cost price of those feed when purchased.

Following are the results obtained on the same kind of a test for the winter of 1918 and 1919.

Practically the same methods and feeds were used as in the foregoing. Closer observations were made and it will be noted that the cows consumed 28 lbs. less hay per week when fed 30 lbs. of silage daily than when fed

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60 lbs. of roots daily and 7 lbs. less of hay than when fed 20 lbs. silage and 30 lbs. roots daily.

The cattle were not limited to any special amount of silage and roots in 1917 and 1918. They were fed all they would eat. It was necessary to place a limit this year and feed them specified amounts because of a shortage of these feeds. It was also found that to feed a cow more than 60 lbs. of roots daily increased the cost of her keep and did not materially increase her milk flow. That a cow eating 120 lbs. or more of roots would produce only a pound or two more milk daily than she would when eating only 60 pounds.

UPPER PENINSULA EXPERIMENT STATION—RATION EXPERIMENTS WITH DAIRY COWS—DECEMBER 8, 1919, TO FEBRUARY 15, 1919.

No. Cow	FEED				
	Lbs. Hay	Lbs. Silage	Lbs. Roots	Lbs. Grain	Lbs. Milk
4	105	140	210	105	315
5	105	140	210	105	417
6	105	140	210	42	171
7	105	140	210	84	250
13	105	140	210	70	278
Totals	525	700	1050	378	1531
Feed cost per ton	\$30.00	\$8.16	\$5.33	\$61.00	
Feed cost per week	7.37	2.16	2.30	11.53	
Total feed cost				21.36	
Cost per 100 lbs. milk				1.50	

No. Cow	FEED				
	Lbs. Hay	Lbs. Silage	Lbs. Roots	Lbs. Grain	Lbs. Milk
4	105	140	210	77	316
5	105	140	210	105	415
6	105	140	210	42	169
7	105	140	210	84	342
13	105	140	210	70	268
Totals	525	700	1050	378	1510
Feed cost per ton	\$7.87	\$2.16	\$2.80	\$11.33	
Feed cost per week				24.36	
Total feed cost				1.91	
Cost per 100 lbs. milk				1.60	
Average cost per 100 lbs. milk from duplicate tests					1520.5
Average yield of milk per week					

Cow No.	FEED				
	Lbs. Hay	Lbs. Silage	Lbs. Grain	Lbs. Milk	
4	84	210	77	312	
5	84	210	105	447	
6	84	210	42	170	
7	84	210	84	342	
13	84	210	70	249	
Totals	420	1050	379	1520	
Feed cost per ton	\$30.00	\$8.16	\$61.00		
Feed cost per week		6.30	3.23	11.53	
Total feed cost				21.03	
Cost per 100 lbs. milk				1.38	

Cow No.	FEED				
	Lbs. Hay	Lbs. Silage	Lbs. Grain	Lbs. Milk	
4	84	210	77	326	
5	84	210	105	422	
6	84	210	42	175	
7	84	210	84	338	
13	84	210	70	278	
Totals	420	1050	378	1539	
Feed cost per ton	\$6.30	\$3.23	\$11.53		
Feed cost per week			11.53		
Cost per 100 lbs. milk			1.36		
Average cost per 100 lbs. from duplicate tests			1.373		
Average yield of milk, per week					1529.5

Cow No.	FEED				
	Lbs. Hay	Lbs. Roots	Lbs. Grain	Lbs. Milk	
4	112	420	77	323	
5	112	420	105	418	
6	112	420	42	176	
7	112	420	84	354	
13	112	420	70	271	
Totals	560	2100	378	1542	
Feed cost per ton	\$20.50	\$5.27	\$61.50		
Feed cost per week	\$4.10	\$5.26	\$11.53		
Total feed cost			25.526		
Cost per 100 lbs. milk			1.635		
Average cost per 100 lbs. from duplicate tests			1.67		
Average yield of milk, per week					1581.5

Cow No.	FEED				
	Lbs. Hay	Lbs. Roots	Lbs. Grain	Lbs. Milk	
4	112	420	77	319	
5	112	420	105	404	
6	112	420	42	172	
7	112	420	84	361	
13	112	420	70	265	
Totals	560	2100	378	1511	
Feed cost per ton	\$8.10	\$5.596	\$11.53		
Feed cost per week			25.526		
Cost per 100 lbs. milk			1.635		
Average cost per 100 lbs. from duplicate tests			1.67		
Average yield of milk, per week					1581.5

Conclusions to be drawn from this year's tests are that it cost an average of \$1.60 to produce 100 lbs. of milk when feeding hay, silage, roots and grain; \$1.67 to produce 100 lbs. of milk when feeding hay, roots and grain; and \$1.373 to produce 100 lbs. of milk when feeding hay, silage and grain, or about 30 cents less than when feeding roots. The silage saved 28 lbs. of hay per week per cow when fed as the only succulent; that is, saved 7 lbs. of hay per cow per week when fed with roots over the amount of hay eaten when roots were fed as the only succulent. No account was kept of the amount of hay consumed per cow in the first trial, 1917-18. The cows produced an average

of 1529.5 lbs. of milk from the silage test, 1531.5 lbs. of milk from the root test and 1520.5 lbs. of milk from the combination test of roots and silage.

The grain ration fed was the same as previously outlined. As nearly as possible one pound of grain was fed to every four pounds of milk produced.

The cattle were in excellent health throughout the test.

Knowing that building silos and making silage have been more or less discouraged because of our geographical location, which renders it impossible to grow the great silage crop, corn, I am submitting the above data and the following information which

(Continued on page 50)

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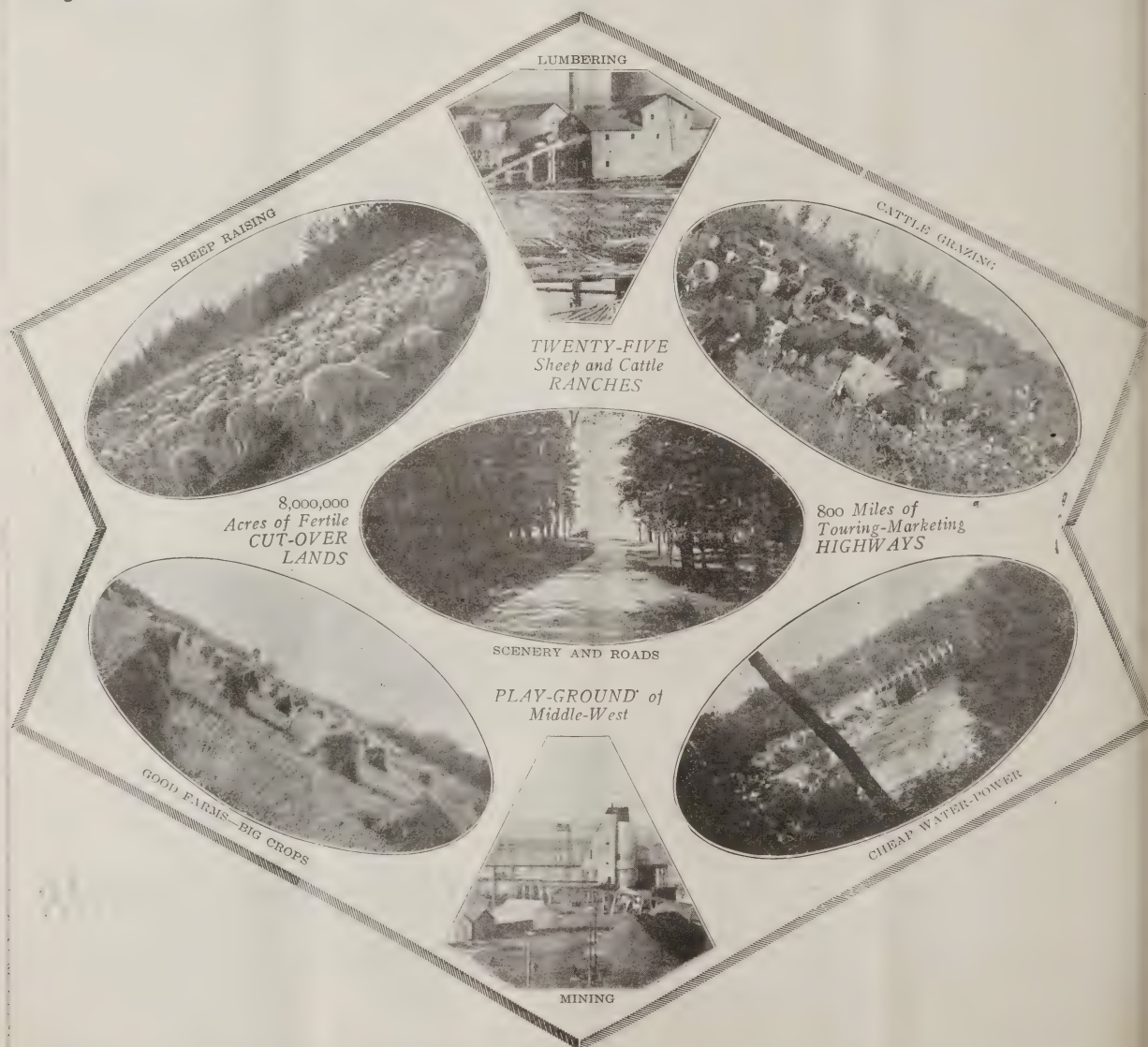
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“CLOVERLAND for RESULTS”

WRITE JOHN A. DOELLE, SECRETARY-MANAGER, UPPER PEN- MARQUETTE, MICH.
INSULA DEVELOPMENT BUREAU



Development Section

Of the Cloverland Magazine

Along the northern rim of the Great Lakes Basin—across the states of Michigan, Minnesota and Wisconsin—there is a great belt of undeveloped land.

A few years ago it was considered worthless—just stump land, no longer good for lumbering, and therefore useless. Today this area is recognized as the greatest frontier America has yet offered her people.

Clover is indigenous—therefore this country has been called "Cloverland"; but every other crop, native to the north-temperate zone, and every form of live stock, has been made to thrive in this new country.

Today there are many settlers, many fine farms, many thriving towns, and wonderful cattle and sheep ranches. There is room, on some 30,000,000 acres, for thousands of additional men and women, some of whom will surely achieve unusual success, and perhaps fortunes.

The Magazine is convinced that the Cloverland country has more real opportunities for farmer, rancher and business man than any other section of the United States today. But these opportunities must be carefully and soundly handled.

On the following pages you will find articles relating to this great cut-over country, known as "Cloverland." They are written by men who already live in the country, and who know it. The Magazine does not assume responsibility for all of the views or expressions included in these articles; recognizing that sometimes as individual experiences though truthfully set forth, may not be applicable to every other similar situation. However, the Magazine accepts statements only from men of standing and responsibility, and believes, therefore, that the following pages fairly reflect the conditions and probabilities of the North Country—"Cloverland."

Entire City Destroyed by Fire "Comes Back" Within a Year

By O. B. ELFES

CLOQUET has come back, a "Bigger and Better Cloquet." Probably no city in the world ever experienced such heart-rending anguish, such complete destruction, and recovered so fully within the period of one year as Cloquet, Minnesota. The city was directly in the path of the forest fire which swept Northeastern Minnesota early in October, 1918, the most disastrous forest fire in the history of the nation. The population of more than 9,000 fled before the tornado of flames on the night of October 12 in a stampede to board trains if coal cars, box cars, flat cars that had been hastily assembled by the railway companies from nearby sidings and terminals at Duluth and Superior and rushed to the burning city to save the thousands of human beings hemmed in on all sides by death walls of flame. A small vanguard of engines had escaped in automobiles; various vehicles, some had left in foot before the roaring avalanche actually hit the city, but thousands remained, cut off from all avenues of egress except along the narrow ribbons of steel leading to Duluth and Superior. The scorching heat blistered the faces of hundreds as the open cars sped through the inferno. Leads of heroism that night are countless, and to these factors alone may be attributed the fact that only our known deaths occurred in the fire.

While human lives were being saved, homes, business blocks, schools, churches, factories were enswathed in the long serpentine tongues of fire that seemed to lick up dwellings and big buildings as mere morsels for the lurid maw that devoured everything with insatiable appetite. Cloquet was gulped down and the ellish hurricane swept on, leaving in its wake windrows of ashes, crumbledricks and twisted masses of angle iron, where a few hours before a happy, prosperous people had enjoyed the blessings of life with the blessings of

O. B. Elfes is editor of "The Pine Knot," a weekly newspaper that reflected the stamania and grit of the inhabitants of Cloquet with a splendid fire anniversary number on October 12, 1919, just one year after the holocaust. This big anniversary number told the story of the fire and the reconstruction of the city in detail, with splendid half-tone illustrations of the marvels that had been wrought by the hardy, determined manhood and womanhood of the stricken community. Better and more substantial buildings are to be found everywhere. In one year a total of 1,037 homes and 43 brick business buildings were erected. A great many more are now under way, and within another year the ugly scars of the disastrous fire will be obliterated. Trees are being planted by the hundreds and reforestation already has been started with a bed of 1,000,000 pine seedlings. Reconstruction in the rural districts has been almost as rapid, and splendid farm houses are beginning to replace the first temporary shacks constructed after the fire. The fields are green again, and many of the large areas of charred timber have been converted into luxuriant pastures. And Cloquet is really a "Bigger and Better Cloquet."

childish prattle and all the environments that make home sacred.

As the smoke cleared away in the days following, the inhabitants came drifting back, single, in pairs and in groups. They were clad in garments of all descriptions, the gifts of a generous public quick to respond with food, clothing and money for immediate and temporary relief. These men and women were filled with courage, a determination to succeed, and reconstruction commenced without delay. No time was lost bemoaning fate—everybody went to work with a will, and in one year Cloquet once more was on the map, a "Bigger and Better Cloquet."

Cloquet is situated in the northeastern part of the state in Carlton County, and is twenty miles west of Duluth, 150 miles north of the Twin Cities, and 75 miles south of the Mesabe range—the greatest iron mining region in the world.

The history of Cloquet is brief, covering a span of about 35 or 40 years. When the pine forests of the north began to attract the attention of the lumbermen, this point on the St. Louis river—one of the largest affluents of the Great Lakes—was naturally selected as a logical site for the mills which were to turn these vast forests

into lumber. Here the river, a placid stream from its source in the forests on the south slope of the Mesabe range and admirably adapted for the driving of logs, breaks through the great rock rim that surrounds Lake Superior on its north and west sides, and plunges headlong through the age-old defiles cut in the solid rock to St. Louis Bay.

Here the first lumbermen came and hewed out a mill site in the primeval forests of virgin pine. This was the little village of Knife Falls and the real beginning of Cloquet, to which the name was later changed. The development of the community was rapid. Other mills came in and in a few brief years Cloquet was a city of 9,000 people, with all the advantages of schools, churches and public utilities found in the older towns of the country.

As the city grew and prospered, the fame of Cloquet as a lumbering center spread and for the past decade it has been known far and wide as "The Home of White Pine." Its five great modern saw mills sent their product to the most remote corners of the nation, and the fame of the city remains today pre-eminent and unchallenged as a lumbering center.

Nor has the industrial stability of

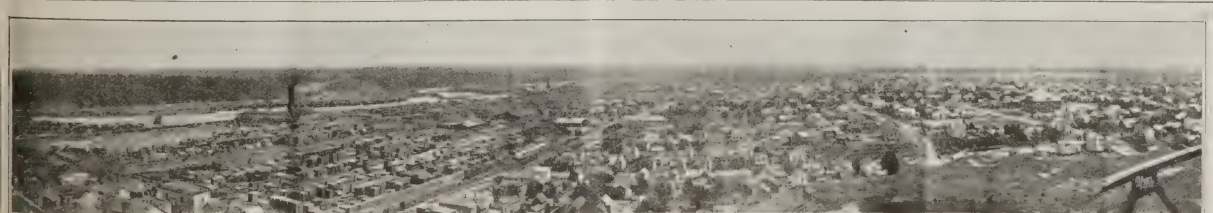
the community remained confined to lumbering alone. The abundance of raw materials in the forests, the strategic location to markets, the abundant and cheap water power and the well-developed transportation systems radiating out from here have attracted other industries and factories—the great paper and pulp mills of the Northwest Paper Company, the box factory of Rathborne, Hair & Ridgway and the plant of the Best Manufacturing Company, manufacturers of white birch toothpicks, wooden butter dishes and other wood articles—made Cloquet the only purely manufacturing community in the state of Minnesota.

Yet this, too, is changing and where once stood the great pine forests nearby the city, the stumps and debris of the cut-over lands are disappearing and prosperous farms are becoming the rule rather than the exception, and the country adjacent to Cloquet is fast making its own reputation as an agricultural section with an unbounded future.

Much of the foregoing might be said of scores and hundreds of towns that have sprung up throughout the nation, during the great development era of the last fifty years. Except for local variations, it is the common history of the growth and prosperity that has made our country great. The vast natural resources were awaiting development and when the development came thrifty communities were born and had their being and villages and cities were reared and homes were built.

Such, briefly, was the history of Cloquet and October 12, 1918, found here a busy, prosperous and contented little city—a town of few tenements and many homes, busy factories, excellent churches and splendid schools. But a latent menace lurked in the north woods, one to which the forest-area dweller becomes inured, but which has always potential possibilities for disaster.

(Continued on page 40)



Busy, Happy, Prosperous Cloquet. Just Before the Flaming Hurricane



50 Counties in Upper Michigan Have Millions of Acres of IDLE Lands

Most of this land is fertile and suitable for diversified farming, live stock production, and dairying, the combination that makes the farm pay. There are also vast areas of cut-over land not suited for agriculture but are dependable ranges for sheep and cattle.

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GEORGE L. LUSK, Secretary Commission and Commissioner of Immigration



WINTER FEEDING IN UPPER MICHIGAN

By FLOYD FRAZIER

There are at present very few pure-bred stallions in Delta County and I believe none at all in Marquette County and the acquisition of ours ought to give horse raising something of an impetus. Several years ago I made up my mind that if possible I would never again use anything but pure-bred mares for work horses, as they reproduce themselves and so cut down the costs of labor (horses) to the minimum, and pure-breds because the colts are worth more, at the same time costing no more, and even less, to raise. I, at that time had no prejudices nor inclination toward any particular breed. So with an entirely open, untrammelled mind, I began investigating the question and, after two or three years spent at it, having before me always the ideal for farm work, I concluded the Suffolk was the best by so large a margin that I haven't even now a second choice. I found the peculiar situation that most breeders and advocates of other draft breeds all admit that for agricultural purposes the Suffolk stands absolutely alone. Apparently to save their faces they limit the superiority of the Suffolk to farm work, in which I can see no reason.

FLOYD FRAZIER.

THERE is a peculiar twist in the human mind which impels us to seek with zeal the flaw in whatever is so skillfully presented to us as to nearly convince us the project is perfect. Yet the nearer perfection seems to approach, the more industrious we become to disprove its existence. How often have you seen an individual viewing a magnificent animal devote himself to trying to find something wrong, trying to find the flaw rather than enjoying the excellence of the individual. We all do it. Thus it was between Cloverland and me.

At first glance Cloverland appears to be about perfect for producing human food through the medium of live-stock, but the weak spot is there. To my mind it is a difficulty, however, to be surmounted with comparative ease, and I believe through this very weakness Cloverland will develop its greatest strength. The problems which will be discussed here are those incidental to winter feeding only and which will be encountered by the grazer who intends carrying through upward of two hundred head of cattle or the equivalent in sheep.

Before the reader has the opportunity to pick this flaw here, I will state that the following has no foundation in practice, but is based largely upon theory, a theory, however, that has, so far, appealed to those who have heard it as being sound. There is much in it that is borrowed from successful practice elsewhere which adds to the presumption that the application of it in Cloverland will in turn be successful.

While the prices of most commodities have been soaring higher and higher the past year, the prices realized for beef and mutton on the hoof are much the same as they were, even less in many cases. The prices sheepmen received for wool this year are no higher than they were two years ago. The only way open to the stockman to equalize his increase in cost of production with no increase in market price is to reduce the cost of production. Railing against the packers and their methods or hurling invectives at real or imaginary profiteers

won't get us anywhere—for some time at least.

This is where Cloverland is going to show its strength and enable us to produce beef, mutton and wool cheaper than in any other part of the country.

Summer grazing is luxuriant and nutritious, and in consequence economical. Winter feeding under the methods now generally used is expensive and inefficient from the standpoint of putting on fat. Therefore this is where we must devote our energies toward reducing costs and increasing results.

Economical winter feeding, then, must be based on a ration that is cheap, nutritious, its production adapted to the climate, easily harvested and easily stored. At first glance hay, especially mixed hay, would seem to fulfill these requirements admirably, and it does except for being expensive, not easily harvested nor perhaps easily stored in large quantities. In the west, where most of the large grazers have been operating, and from whence they are now coming to Cloverland, hay is peculiarly nutritious and answers exceedingly well. While it is not much of a problem there to cure and stack it in almost any quantity, up in this country where show-ers are of such frequency during the haying season it is a serious problem—so serious that it appeals to me as being next to impossible under present conditions for the man who requires upward of 400 tons, even if he had the requisite acreage in meadow.

In the first place it is quite a problem for the new arrival on cut-over lands to get several hundred acres cleared, broken up and seeded. If he starts out to buy hay he is at once confronted with a prohibitory price and great difficulty in getting it at all. I propose to eliminate this hay feeding entirely on these accounts and substitute therefor some root crop and straw, thus fulfilling the demands of economy.

Root crops yield exceptionally well in this climate and my contention is that one of these, probably rutabagas, should be grown to form the great bulk

(Continued on page 49)

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We are pleased to announce the safe arrival of an unusual collection of fine registered sheep. They represent many years of skillful improvement in the hands of master breeders. There are four breeds—

CHEVIOTS, SHROPSHIRE, SOUTH DOWNS, HAMPSHIRE

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The great agricultural, industrial and financial channels of trade from the vast territory in Upper Michigan and Wisconsin follows a natural course into GREEN BAY.

*Stockmen, Farmers, and Business Men
can obtain information of value
by corresponding with the*

GREEN BAY ASSOCIATION OF COMMERCE
GREEN BAY, WISCONSIN



Entire City Destroyed by Fire "Comes Back" Within a Year

(Continued from page 37)



Cloquet the Next Day After the Fire Which Destroyed Practically Every Building



The "Bigger and Better Cloquet" One Year After the Historical Fire

The morning of October 12th dawned clear and warm, but with the air impregnated by a smoky haze from the small fires here and there in the woods, which were inflammable as tinder after an unusually dry summer and fall. These fires had started from various causes all over the forested section of the state—from sparks of passing locomotives, from settlers clearing land and from fires of campers. The rangers and patrolmen of the State Forest Service were living strenuous days and nights in fighting these small scattered fires, but they were few men and the territory they had to guard was vast and, in many cases, inaccessible. These isolated fires were not unusual in the spring and fall seasons, and the ordinary citizen gave them but passing attention.

But by noon of that fateful day unusual changes in atmospheric conditions were apparent. The soft breeze that had come with the beautiful Indian summer dawn had increased in intensity and was blowing an ever-strengthening gale. Great clouds of smoke began to roll up over the tree-tops and the air became acrid with the smell and taste of burning wood. Everything in the woods was dry as powder, the forest floor was ankle deep in autumn leaves and every bit of grass and weeds was frost-killed and dead.

Still stronger blew the wind and the sky became darker and darker with the smoky pall until the sun appeared a smear of blood in the grey heavens. The innocuous fires in the woods had leaped on the wings of the gale and became roaring red demons of destruction. Apprehension became rife and during the afternoon came reports of great conflagrations beyond control and sweeping with incredible speed across wide stretches of country.

As the sun dropped lower in the western heavens the mighty gale increased in fury and became a flame-laden hurricane—a tornado of red death against which nothing could stand and before which man could only flee. Cloquet lay directly in the path of one of these awful conflagrations and as evening came the people had begun their flight for safety. Reports of disaster were rife and alarm was strong in every heart. Already Brookston, the little village to the north, had been licked up by the flames and the homeless refugees had passed through Cloquet, huddled in coal cars on the Great Northern railway. The east end of Duluth was

afire and the flames were at the very door of Carlton. The sky to the west and north was a mass of lurid flame and as the sun went down it was apparent that Cloquet was doomed.

Then began that never-to-be-forgotten flight for safety. Those who had automobiles loaded them to capacity with other less fortunate and started toward Carlton, which providentially had been spared from the danger of the afternoon, but the great majority went toward the railway station, where long lines of gondolas and box cars were awaiting the refugees to take them to safety. The foresight of the railway officials in providing these trains is a thing that will long be held in grateful remembrance by the people of this city, for without them Cloquet would have been a charnel house and the dead probably have been numbered by hundreds. As it was, the loss of life was negligible, but four authenticated fatalities being reported in the whole city.

The flames entered the city at the western end and caught in the piled lumber of the Northern Lumber Company's yards. The unparalleled fury of the wind lifted the burning boards and scattered them far and wide over the city, dozens of new fires springing up each minute. The time of destruction was short. A few hours and Cloquet was an utter ruin and desolation. A small group of buildings were left standing on Dunlap Island in the river; the two mills of the Cloquet Lumber Company were saved; the Johnson-Wentworth mill was barely out of the path of the flames, and the plants of the Northwest Paper Company and the Rathborne, Hair & Ridg-

way Company were spared. Five or six small residences in the east end of the city near the Berst plant did not burn and one school building was left—the Garfield school—near which one lone residence stood. Two residences also remained in the west end of the city, but all else was completely destroyed.

The people who fled from the city on the trains were taken to Duluth and Superior, the Northern Pacific trains going to the former city and the Great Northern to the latter, where they were immediately housed and cared for by the kindly people of those cities. Many of those who left by automobile, and not a few who went out afoot, remained over night in Carlton, where every home was opened to their unfortunate neighbors. Many returned to the city the next day, hoping against hope that something had been spared, but when they saw the utter completeness of the destruction, then only did they realize that they had passed through an historic disaster—"the greatest conflagration since San Francisco"—it has been termed by well-informed insurance experts.

It is not our intention to give a complete story of this conflagration; to tell of the many heroic deeds of rescue or the brave fights lost and won to save poverty and lives from the devouring flames. Neither shall we go into the sorrowful details of the many dead; of the community grave with its score of bodies at Moose Lake; of "death curve" on the Pike Lake road, where automobiles piled up one on top of the other and where few of their occupants escaped. Nor

will we spend any great time in recounting the privations of the next few days, or the feeling of utter desolation that swept over everyone who they came back and saw, as it seemed at that time, the very foundations of existence swept away and the labor of a lifetime gone to naught.

It is our purpose rather, now that a year has elapsed since that time, to speak more at length on the high courage with which the people of Cloquet faced the problem of re-establishment and reconstruction; of the unparalleled record of achievement in the past twelve months; of the sublime faith of the people of this city in its future prosperity and permanence. The work accomplished here in the past year is the marvel of the whole state, but it could never have been accomplished if the morale of its people had not been of the highest sort. That their courage was not broken by their losses, their destitution and their grief is a matter for wonderment that the whole community and countryside where the fire had wrought its will, and the people thereof faced the rigors of a northern Minnesota winter with bare hands, did not break under the strain seems more than passing strange, and it is with grateful remembrance that the acknowledgements are made that the credit for this phase of our rebuilding lies largely on the generous people of the nation—particularly of Minnesota and Wisconsin.

There were a few days of black despair, but the steady hand on the shoulder, the first dollar in the empty pocket, went a long way toward restoring wavering faith in the future. Then when organization was perfected and the steady stream of relief began to come to the stricken ones, courage revived and each and every one took a new grip on things and faced the future with clear eyes.

No story of this section dealing with events since the fire would be complete without reference at some length to this phase of reconstruction. The call went forth and the response was generous and immediate. Thousands of dollars and tons of food and clothing were rushed into the fire zone and with this relief came organization. Governor Burnquist and other state officials were promptly on the scene and set the machinery of the state at work furthering the work of relief.

The State Motor Corps and the Home Guards had heard the first alarm as the storm of flame broke forth and were out all the night of the fire on their missions of rescue. The



Green Pastures Have Erased the Blackened Meadows

(Continued on page 52)



Weighing the Evidence

Consideration No. 2

"I DO want to own my own range, and I can see that your lands are admirably adapted for sheep and cattle raising. But how can I get started owning that range when just now all my money is tied up in stock," asks a young man from Montana in a recent letter.

EASY. Pick out the tract you want to use. Ship your stock to it and it is yours for a year. It will not cost you a cent. After you have had this chance to try the country out, then you can start buying the lands by putting your profits into improvements and payments on your land contract.

BY this liberal offer you will not only take a profit from your stock, but you will also be accumulating a handsome surplus by the increase in value of your land.

Fair enough, is it not. Then write us today for further particulars so that you will be prepared to visit these lands early in the Spring and pick out that tract.

CLOQUET LUMBER CO., NORTHERN LUMBER CO., JOHNSON-WENTWORTH LUMBER CO.
CLOQUET, MINNESOTA



HUNDREDS of prospectors have spent years and panned tons of gravel and rock before hitting Pay Dirt—earth which yields a profit.

Some farm land advertisers have "prospected" without striking real Pay Dirt—advertising that paid sure and big.

The southern half of Wisconsin is a "bonanza" of land buyers. It is the surest, richest field for the land man.

The Journal completely and thoroughly covers this section. It is read by most of the progressive families in this district. They have confidence in The Journal. Its policy, its news, and its advertising.

9,950 Farm Land Ads

were printed in The Journal during 1919—making the biggest land market of the biggest proved field of buyers for improved Wisconsin farms and the cut-over lands to the North.

Your farm land or cut-over land ad in the Journal will pan out in golden returns—it is real PAY DIRT.

Free

A copy of the new Wisconsin Real Estate License Law in booklet form.

Booklet "Agricultural Wisconsin" worth a lot to any land man.

Information regarding the Journal's policy, service, circulation, advertising rates, and land bureau.

Over 100,000 circulation.

Four times as many farm ads as Milwaukee's second paper.

Reaches four out of five of the English speaking families in Milwaukee.

Has nearly 40,000 rural circulation.

Goes into every county in the State.

Most successful advertising and promotion service department in Wisconsin. Free to advertisers.

The Milwaukee Journal

"Supreme in Milwaukee"

"Dominant in Wisconsin"

What a Decade Has Done for Northern Minnesota

By HON. FRED D. SHERMAN

Commissioner of Immigration for Minnesota

WHAT the past decade has done and what the future decade will do toward the development of Northern Minnesota is indeed an interesting story to those of this and other states, who have been watching the development of the Northwest.

It is just ten years ago last summer that the writer had occasion to visit practically all of the counties of that section of the state, the itinerary embracing the following counties: Itasca, St. Louis, Lake, Carlton, Aitkin, Crow Wing, Clearwater, Beltrami, Cass, Hubbard, Todd, Kittson, Marshall, Polk, Roseau, Red Lake, Becker and Pine. At that time in northern and eastern Pine County, farmers were scarce and their farms were small, with very few poor roads. A trip through that section today we find many fine farms, good buildings, and many miles of graded roads. The dairy cow has played a part in the development of Pine County and today there are nine creameries located in Pine County, with 1,822 patrons who are

developing. Ten years ago when the writer visited Clearwater County, the large lumber companies were just winding up their cut, for Clearwater County has been a lumbering county, and some of the finest white pine logs ever drawn from a Minnesota forest were taken from the lands of Clearwater County. The homesteader was there and just getting his start; there was some farming done at the time, but the farms were small and pioneer conditions prevailed in nearly all parts of the county. At that time thousands of acres of school land were for sale in the county at an average of about \$6 per acre, while today practically all of the good school land which lies near the railroads are bought up. Clearwater County, like all other counties in northern Minnesota, is a natural dairy country, and the dairy business which has been so rapidly developed has done wonder for this county. Ten years ago there were not any creameries in Clearwater County, while now there are seven



Ten Years Have Worked Wonderful Changes

delivering to these creameries the milk from 16,649 cows. Last year these creameries manufactured 1,055,538 pounds of butter and paid to the farmer of Pine County \$263,933.44 in cash. To better appreciate the rapid development of the dairy industry in Pine County, we quote from the State Dairy and Food Commissioner's report for the year 1908, just ten years ago, and we find there were only two creameries in the county with only 240 patrons delivering milk from only 1,637 cows. These creameries manufactured that year, 301,891 pounds of butter, and paid the patrons \$58,415.60. By comparing figures of 1908 with the corresponding figures of 1918, it will be seen that in ten years that county gained in creamery patrons 1,640. It gained in dairy cows, 15,012; manufactured 784,047 more pounds of butter, and paid her farmers \$205,517.84 more than in 1908. Could there be any better proof of the growth and development of Pine County than in the figures quoted above. At the little town of Askov, a station north of Sandstone, on the Great Northern railroad, ten years ago was surrounded by a little less than a wilderness, while today one can stand on the depot platform and count more than a dozen silos, which have been recently erected on good substantial farms.

Clearwater County is another county of Northern Minnesota, that, like the rest of the counties of Northern Minnesota, is making rapid strides in de-

veloping. Last year these creameries manufactured 236,963 pounds of butter and paid the farmers of Clearwater County \$53,029.11 in cash. Some progress in ten years. Hundreds of miles of good roads have been built in the county, good schools, churches, and hundreds of farm homes mark the spot where, ten years ago, dense forests stood.

Ten years ago Pennington County was a part of Red Lake County, the former being created about three years later from the northern half of Red Lake. At that time the western and central portions of that territory, which now embraces the counties of Red Lake and Pennington were quite well developed, but the eastern portion of the territory which forms a part of the dividing line between the timber and prairie districts of Northern Minnesota, was almost a wilderness, but not so today. Practically every acre of swamp land in this section has been drained by either state, county or judicial ditches, and now those parts of the county which were at one time considered worthless has been transformed into some of the richest farming territory in the state.

In the territory embraced by these two counties, dairying has made rapid strides. Ten years ago there were only four creameries in these two counties. They were receiving milk from 2,476 cows. The amount of butter manufac-

(Continued on page 46)

Northern Minnesota Lands are-



LOW PRICED-NOT CHEAP



Write Us for Details About These Lands

FRED D. SHERMAN, Commissioner of Immigration
STATE CAPITOL ST. PAUL, MINN.

These Strong Cloverland Banks Are Ready and Willing to Give Every Possible Co-Operation to New-comers. They Invite Correspondence.

First National Bank of Calumet

Calumet, Michigan

Capital \$200,000.00

CALL IN AND SEE US
We are always pleased to serve you

Officers: John D. Cuddihy, Pres.; Edward Ulseth, Vice Pres.; Edward F. Cuddihy, Cashier; Daniel C. Harrington, Asst. Cashier; Pierce Roberts, Asst. Cashier.

First National Bank of Bessemer

Bessemer, Michigan

Capital, Surplus and Profits,
\$150,000.00

Oldest Bank in
Gogebic County

ESCANABA

is the leading city in Cloverland.

The leading bank in that city is the

Escanaba National Bank

Correspondence Invited.

The First National Bank of Alger County

Munising, Michigan

Officers: William G. Mather, Pres.; G. Sherman Collins, Vice Pres. and Cashier; John N. Korpela, Asst. Cashier.

The State Bank of Ewen

Ewen, Michigan

Officers: L. Anderson, Pres.; J. S. Weidman, Jr., Vice Pres.; E. J. Humphrey, Vice Pres.; A. M. Anderson, Cashier. Directors: L. Anderson, Calderwood, Mich.; J. S. Weidman, Jr., Trent Creek; E. J. Humphrey, Ewen; J. N. Hewlett, Bruce Crossland; J. F. Foglesong, Ewen; Nugent Dodds, Ewen; A. M. Anderson, Ewen.

First National Bank of Iron River

Iron River, Michigan

Capital, \$50,000.00

Surplus, \$20,000.00

We invite letters of inquiry
regarding Iron County

Officers: Ellsworth S. Cox, Pres. Wm. J. Richards, Vice Pres.; A. J. Fohland, Cashier.

First National Bank of Marquette

Marquette, Michigan

Over \$2,000,000.00 Resources.

Officers: Louis G. Kaufman, Pres.; Edward S. Bice, Vice Pres.; Charles L. Brainerd, Cashier.

Marquette National Bank

Marquette, Michigan

Capital and Profits, \$160,000.00
United States Depository
We invite correspondence

Officers and Directors: J. M. Longyear, Pres.; D. W. Powell, Vice Pres.; F. H. Begole, Vice Pres.; F. J. Jonsson, Cashier; R. R. Fox, Asst. Cashier; E. A. Brown, Second Asst. Cashier; J. G. Reynolds, Wm. G. Mather, Daniel W. Powell, A. T. Roberts, Austin Farrell, Dan H. Ball, R. P. Brown.

First National Bank of Menominee

Menominee, Michigan

Resources Over \$2,000,000.00

Oldest and largest Bank in Menominee County and under same management for 32 years.

Depository for United States and State of Michigan

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The Lumbermen's National Bank

Menominee, Michigan

One of the Oldest and Strongest
Banks in Cloverland

Officers: Warren S. Carpenter, Pres.; Wm. Webb Harmon, Cashier.

Commercial Bank of Menominee

Menominee, Michigan

"The Bank of the People"

Invites correspondence from prospective settlers. You can bank by mail with us.

Houghton National Bank

Houghton, Michigan

United States Depository
Capital \$200,000
Surplus \$200,000
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Officers: J. H. Rice, Pres.; W. D. Carterley, Vice Pres.; A. N. Naudia, Vice Pres.; C. H. Frimodig, Cashier; R. T. Bensall, Asst. Cashier; Edward Romp, Asst. Cashier; F. C. Stoyke, Asst. Cashier.

The Newberry State Bank

Newberry, Michigan

Capital, \$30,000.00

Surplus, \$6,000.00

A General Banking Business. Commercial and Savings Departments.
3% Interest paid on Savings Deposits.

Officers and Directors: F. P. Bohn, Pres.; W. G. Fritz, Vice Pres.; L. H. Read, Vice Pres.; E. M. Chamberlain, Cashier; E. L. Fritz, Andrew Weston, J. C. Foster, Matt Surrall.

First National Bank of Sault Ste. Marie

Sault Ste. Marie, Michigan

Since 1836 this strong bank has been interested in the growth and development of Chippewa County. Correspondence Invited.

Officers: R. G. Ferguson, Pres.; Otto Fowle, Vice Pres.; Chase S. Osborn, Vice Pres.; E. R. Mead, Vice Pres.; Fred S. Case, Vice Pres. and Cashier.

First National Bank of St. Ignace

St. Ignace, Michigan

The oldest and largest Bank, and the only National Bank in Mackinac County.
Your business inquiries will receive prompt and courteous attention.

Officers: O. W. Johnson, Pres.; E. H. Hotchkiss, Vice Pres. and Cashier.

The Marquette County Savings Bank

Marquette, Michigan

Officers and Directors: H. L. Kaufman, Pres.; S. R. Kaufman, Vice Pres.; G. A. Carlson, Cashier; O. E. Barber, Asst. Cashier; E. J. Hudson, E. S. Bice, Louis G. Kaufman, Chairman, Advisory Committee

Financing the Farm

PROPER financing is the foundation of every business.

Farming is a business—exactly as complicated, or as simple, depending upon the viewpoint, as any other business.

To successfully operate a farm—especially a new farm—the right kind of financial foundation must first be laid. Material for this foundation usually is found in the banks of a community. It is the banker, rather than anyone else, who understands financing, whether it be for an iron or steel plant, a lumbering operation, the cattle business, the dairy farm, or any other kind of farm. Financing is based, in the main, upon fixed principles. It doesn't matter much whether the business is manufacturing or farming—the principles apply just the same.

The best step a farmer can take is a step toward his banker. If the banker is the right sort he will gladly discuss farm problems, even though no actual financial transaction may follow. Usually he will be able to suggest a method whereby some problem can be met. The farmer, who, when he visits town, steps in at the bank for a fifteen minute chat, is very likely to get a new angle on things and soon will be using the bank in a practical and sensible way.

Banks are not merely depositories. It is, of course, wise to begin banking relations with a deposit; but the bank that is interested exclusively in the depositor soon fails. It must have quite as much interest in the borrower—always assuming that this borrower is working sanely and soundly.

A farmer who has proven that he can grow profitable crops is fully justified in borrowing during periods of the year that mean expense, without income, to him. For instance, a farmer needing large supplies of expensive seed should get adequate help from his banker to buy this seed—always assuming that he has proven his ability to handle the seed and the resulting crop, successfully.

A farmer who has good pasturage, good barns, and who knows how, ought to be able to buy live stock to use the pastures, with the help of his banker.

Permanent improvements, farm machinery under certain conditions, seeds, or live stock, will be financed through the banks if the right men want the loans.

The settler, even if he is practically without resources, ought to get acquainted with local bankers and discuss his problems with them. He will not be able to borrow much at first; but a good banker will help him develop, not only his farm, but also his borrowing power.

Farming and banking go hand in hand. The bank will not prosper without farm depositors; the farm is not likely to prosper without banking

assistance. The right kind of debt shows progress; the wrong kind, of course, is a forerunner of failure.

So the farmer who foresees possible debt ought to at once consult a banker so that the debt in prospect will become the right kind, instead of the wrong kind, of debt.

Backing Stockmen

"Live stock paper" is now taking an important part in Cloverland banking. A few years ago this form of security was unknown in this district, but now it is not unusual for banks to loan sums ranging from \$10,000 to \$50,000, and even more, to practical, experienced stockmen.

The First National Bank of Duluth, Minnesota

With resources of over
\$25,000,000.00

With Thirty-two years of
sound, conservative
banking
Invites your business

"The Bank of Friendly Service"

First National Bank of Iron Mountain

Iron Mountain, Michigan

Resources Over \$1,600,000

Officers:
E. F. Brown, President; J. C. Kimberley, Vice-President; W. J. Cudlip, Second Vice-President; F. J. Oliver, Cashier; Leo H. Mortensen, Assistant Cashier; J. W. Franson, Assistant Cashier.

Directors:
E. F. Brown, J. C. Kimberley, W. H. Scandling, A. Bjorkman, W. J. Cudlip, R. W. Pierce, Jr., R. C. Brown, G. O. Fugere.

Of Interest to Farm and Real Estate Owners, Rural Bankers, Land Companies

YOUNG married man, 32 years old, German born, with 12 years' experience in Business and Farm Administration; an executive of ability, concrete extensive knowledge, broad vision, and ample common sense, well versed in

ACCOUNTING, BUSINESS ORGANIZATION AND ADMINISTRATION, FARMING, STOCKRAISING, DAIRYING AND MARKETING, RURAL ORGANIZATION, AND DEVELOPMENT PUBLICITY WORK

seeks position for April 1, 1920. Applicant is qualified to fill successfully the position of—
Manager of large Farming and Stock Raising or Dairying enterprise;
Manager of the Rural Extension Department of progressive banking institution;
Manager of Land company with large colonization project of merit; or similar position, and invites correspondence, relative to large and reasonably permanent propositions only.

Address **PAUL WEIS, 7008 Carpenter St., CHICAGO, ILL.**



Billions in Wealth

THE VALUE of farm crops for 1919 is placed at \$14,092,740,000 by the U. S. Department of Agriculture. Corn is king. The last crop is worth nearly four billion dollars. Other principal products and their value are: Cotton, \$2,332,913,000; hay, \$2,129,087,000; wheat, \$2,028,522,000; oats, \$895,603,000.

Wisconsin as one of the leading agricultural states has helped to swell the crop total. Cloverland is helping to increase the state's production.

Milwaukee is the southern gateway to Cloverland. This bank will welcome any opportunity to be of service to its "up-state" friends.

**FIRST WISCONSIN
NATIONAL BANK**
.. Milwaukee ..

"IF I HAD KNOWN"

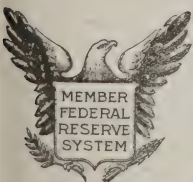
That is what Jones said after he failed. He could have known. You can know a number of basic things which affect your business by just reading our Fundamental Trade Letter which will be sent on the last day of this month to every man who asks for it.

CITY NATIONAL BANK, Duluth

AMERICAN EXCHANGE NATIONAL BANK OF DULUTH, MINNESOTA

Checking Accounts	Foreign Exchange
Savings Accounts	Safe Deposit Boxes
Travelers' Checks	Trust Department

Total Resources, September 12th, 1919 Over \$20,000,000.00



CATTLE and Sheep Men locating in this vicinity will find us both able and willing to assist them.

SAULT SAVINGS BANK

"THE BANK FOR YOU"
SAULT STE. MARIE, MICH.

Speaking of Banks and Banking

Capital and
Surplus
\$600,000

A BANK "AD" means nothing unless there is behind it a REAL SERVICE that will help to build up YOUR business. The splendid growth of THE McCARTNEY NATIONAL BANK may be attributed to the fact that because of its service the business of its customers is made to grow. No bank can grow and prosper unless its customers grow. So our first aim is to help our customers along the road to prosperity. Once a customer of this bank you become a member of the BANK FAMILY with its co-operation and sympathy in all your undertakings that are of a legitimate character.

Come and see
or write us.

The McCartney National Bank
Green Bay, Wis.

BANKING BY MAIL IS PERFECTLY SAFE

IF YOU LIVE at a distance from this Bank you can use Uncle Sam's Mail Service to good advantage in your banking. By doing so you can save a trip to town when it is inconvenient to come in person. And "Banking by Mail" is perfectly safe if the sender uses ordinary care in mailing his letters. Money can be sent in the form of a post office or express order, draft or check, and without being registered. Currency should be forwarded by registered mail—always.

You'll find our bank-by-mail service entirely satisfactory.

First National Bank

MARQUETTE, MICHIGAN

DESIGNATED UNITED STATES DEPOSITORY

Capital, Surplus and Undivided Profits \$300,000

Attractive Opportunities

*To buy cut-over range
and
agricultural lands*

from an old, reliable lumber company at prices and on terms which are most attractive at this time, when

GREATER CLOVERLAND

is finishing a year of great success in sheep and cattle grazing on cut-over lands, and a year of unprecedented sale of and location on new farming locations in what Frank J. Hagenbarth says is "the greatest agricultural and live stock section in the United States, if not in the world."



For full information address

SAWYER-GOODMAN CO.

MARINETTE, WISCONSIN

Or

GOODMAN LUMBER CO.

GOODMAN, WISCONSIN

What a Decade Has Done for Northern Minnesota

(Continued from page 42)

tured was 200,998 pounds, and \$28,824.59 was paid to the patrons. Today, in the counties of Red Lake and Pennington, we find ten large creameries, receiving milk from 6,597 cows. Last year these creameries manufactured 911,159 pounds of butter and paid their patrons \$219,477.57. Practically the same progress has been made in developing the counties of Roseau, Kittson and Marshall, those past ten years as we find in Red Lake and Pennington. Thousands of acres of level prairie lands that a decade ago were idle and undeveloped have been transformed into fertile farms. Roads, bridges and schools have been built and many thriving towns are found along the various lines of railway. A general air of prosperity prevails and land values are steadily increasing. In the timbered counties to the east, development has not been so fast as in the prairie counties, but much progress is evident. Grand Rapids, in Itasca County furnishes a good illustration of what has been accomplished in the past ten years. In the summer of 1908, the writer visited Grand Rapids, which was then the seat of great lumbering industries. From the express cars of every train arriving from Duluth, cases of eggs, tubs of butter, cans of milk, and crates of vegetables were unloaded on the depot platform, having been shipped in there to supply the local demand. On the streets of the village, the lumberjack and river driver swarmed while the camp managers were buying cross-cut saws and cant hooks. Last summer we again visited Grand Rapids, but it was not the Grand Rapids of ten years ago. Out going trains for Duluth and other cities along the Range were carrying tubs of butter, cases of eggs, cans of milk, vegetables, etc. In the stores, the farmers' wives were trading their farm produce for merchandise and the farmers were investing their money in breaking plows and cultivators. This means but one thing, in ten years, Grand Rapids had changed from a lum-

bering town to an agricultural town; she is producing instead of consuming.

Beltrami County, next to St. Louis, the largest in the state, has made wonderful progress, especially in the southern half, and pretty nearly all of that country south of Red Lake is quite well settled, and good roads and prosperous farms are found in every township. North of Red Lake there is a vast area of country still in its primeval state, but these lands are gradually settled up, and in a few years Beltrami County will be occupied with enough people to make rapid progress in developing all sections of the county. In the vicinity of Spooner, Baudette and Williams, along the line of the Canadian Northern railroad, the country is quite well developed, and some fine farms are found.

Koochiching County and northern St. Louis are just in their infancy so far as development is concerned, and lumbering is still the principal occupation there, but where the timber has been removed for several miles back from the railroads, the settler has come to live and many small though prosperous farms are found. As fast as the timber is removed, the pioneer farmers move in and I predict that in ten years many of the fertile lands in Koochiching and northern St. Louis Counties will be transformed into some of the richest farms in Northern Minnesota.

Lake and Cook Counties have less development than any of the other counties of Northern Minnesota. There is, however, much good land in these counties, which will eventually be converted into farms. Along the railroads and back from the lake small farms are being developed and more settlers are coming in each year.

If the same progress in the agricultural development of Northern Minnesota is made in the next decade, as has been in the past, a great surprise is in store for him who is familiar with conditions there now and will wait ten years and then pay another visit to this "Empire of the North."

Ice on the Farm No Longer Regarded as a Luxury

ICE FOR USE on the farm, especially the dairy farm, is no longer regarded as a luxury. Many thousands of dollars are lost every year, says the United States Department of Agriculture, because of the improper cooling of milk and cream. One-half of a ton of ice to the cow is held to be sufficient to cool cream and hold it at a low temperature for delivery two or three times a week. Around two tons to the cow should be stored where milk is to be cooled. A higher quality of products and the fewer deliveries necessitated are important items in the saving made.

Experiments made at the South Dakota experiment station show that ice

can be stored to good advantage in pits in the ground. From one pit 36 per cent of the original amount of ice stored was recovered and used. "A shrinkage of 64 per cent appears large," says the South Dakota bulletin, "but the conveniences and benefits of having ice daily more than repay for the loss."

Good farm ice-houses can be built at low cost, say agricultural engineers at Minnesota University Farm. When sawdust is used for insulation, around 50 per cent of the original ice can be recovered. If natural bodies of water are not available, ice can be obtained by building ice ponds or by freezing water in cans.

Winter Disposal of Manure Urged

DISPOSAL of manure as fast as it is produced in winter is advocated by M. J. Thompson, superintendent of the Duluth sub-station of the Minnesota Department of Agriculture. Double handling is avoided. Losses by leaching are held to be slight. The Duluth district has deep snow and low temperatures, but in five years of live stock farming at the sub-station there has been no deviation from the rule of hauling the manure to the fields promptly. Mr. Thompson says: "The spreader is operated as late in the fall as possible. With the coming of snow a rough box with runners attached is placed at each barn, the

manure is dumped into it and in freezing weather it is hauled to the field at once.

"We manure the grain stubble where hay is to follow the coming season. This insures a good hay crop even though the year may be dry. The manure is worked into the soil thoroughly before the cultivated crop follows in its turn. Likewise the weed seeds are sprouted and out of the way with the hay crop. As nearly as possible we try to apply at the rate of two tons an acre a year for each acre under the plow. Thus in a five-year rotation this would mean ten tons per acre to each field applied once in five years."



These Wyoming Sheep

Grazed Near Two Harbors, Minn.,

Brought Top Market Price

ROBERT A. CROSTHWAITE of Cody, Wyoming, shipped 4,100 sheep to a range near Two Harbors, Minnesota, the 6th of last July, and sent his first bunch to South St. Paul, where they brought top market, on September 15th.

Do You Know of a Better Record?

There are thousands of acres more in Lake County, Minnesota, and in the vicinity of Two Harbors, just as good as the range that gave Mr. Crosthwaite such a handsome profit for coming to Cloverland. These ranges of blue grass and clover await your flocks and herds.

*Inspect Lake County cut-over land first,
and if satisfied, bring on your
sheep and cattle.*

When writing advertisers, please mention Cloverland Magazine.

Business
Men
of Two
Harbors,

Two Harbors,
Lake County,
Minnesota.



Service that Satisfies

It is what we aim to give every client, whether shipper of stock or purchaser of feeders. Thirty-three years' experience justifies us in the use of this slogan—thirty-three years of building and bettering our organization.

Keep posted. Our 16-page weekly market news review, the Live Stock Report, is free.

CLAY ROBINSON & CO.

Winter Feeding in Upper Michigan

(Continued from page 38)

the winter ration. As nearly as I can ascertain a safe average crop of rutabagas, including the tops, is 25 tons to the acre. If it costs \$40 per ton to raise them, a reasonable estimate the per ton cost would be \$1.60, they fulfill the first requirement of being cheap. Assuming this yield and as being fairly accurate, it would require only one-twentieth of an acre to produce enough rutabagas, feeding 20 pounds a day for 125 days, carry a steer through the winter. Against this about 1 1/4 acres of meadow would be required to produce the requisite amount of hay, and the hay would be worth about \$45 as against the \$2 cost of the roots, plus the expense of harvesting and storing.

It is not intended here to go into the food value of rutabagas. This is everywhere recognized and the only reason they are not fed more in other districts is because the climate is not adapted to their economical production. The point of nutrition, then, is assumed to be a matter of common acceptance. There is difficulty in conveying any crop more easily harvested than rutabagas, or most roots, for they may be gathered at any time through a period of approximately six days in the fall. Rain or sunshine, snow or frost will not damage the crop or interrupt, necessarily, the harvest. Thus another of the requirements is satisfactorily met.

Nearly every farmer up here has a root cellar which is in successful use, and without doubt the stockman would do well to build one in the absence of any better method of preserving the roots. But instead of the cellar, where the tops, which carry more food value per ton than the roots, would soon rot, the only untried part of this scheme provides that the roots and tops together be cut up and put in silos. Almost every green crop of the farm has been successfully ensiled, and why not roots? They have the necessary ingredients to make good silage. The objection may be raised that they contain too much water. So you have probably been wondering where the necessary amount of roughage is coming from. We will fill both of those birds with one stone by adding to the roots, as the silo is being filled, enough chopped straw—oat, barley, pea, or wheat, whatever you may have or can buy easiest—thereby furnishing the roughage in a most palatable form. The proportion of straw necessary to absorb the excess moisture must of necessity vary some according to the variety used and the amount of moisture it contains. It will take approximately one ton of straw to every 2 1/2 tons of rutabagas, this being just about the amount you would want to feed with to roots. This provides for utilizing a roughage what is too often a waste product of the field, but if not

grown by the operator in sufficient quantities straw is something that can be bought at a reasonable price. The result is a feed superior to hay which will cost in the silo between \$4 and \$5 per ton, depending upon how much value is put on the straw. If it is taken from your own stack at \$6 per ton, the resulting ensilage has cost about \$3.25 per ton; if you have to buy the straw at \$10 per ton then the ensilage has cost you about \$4.50 per ton—exclusive of the cost of filling the silo.

To sum up, if you carry a steer through the winter on hay and you feed it 20 pounds a day for 125 days, it has consumed 2,500 pounds of hay which is well worth at present \$30. If you feed it 40 pounds a day of this silage it has consumed 5,000 pounds which would be worth, say \$5 per ton or \$12.50, a saving of \$17.50 on each steer, or in terms of sheep about \$2.25 per head. Not only have you saved a nice profit, but your stock will come through the winter in better shape. Particularly will this be true of breeding ewes. A little oil cake or meal fed in addition leaves nothing to be desired as a fattening ration.

The Scotch raise some of the finest beef cattle in the world and they are mostly fed, we are reliably informed, nothing but roots, straw and oil cake. Consequently the ration above is nothing new, it has been tried and found to have unusual merit. Only the method of storing and handling is a departure, and this has been successful with other crops. Though the theory is lacking the proof of practice, is it not a reasonable presumption that practice will prove the theory correct?

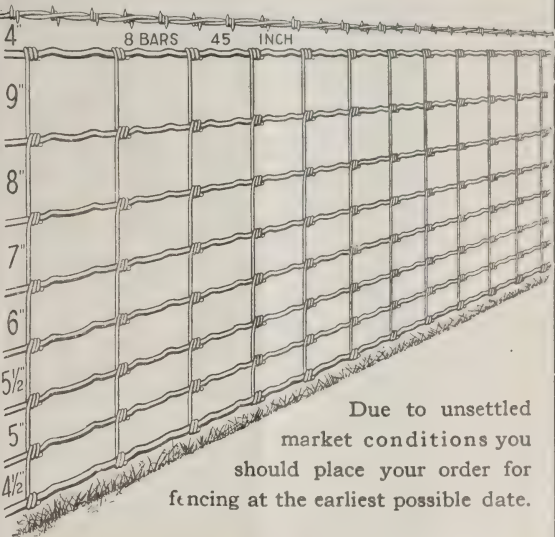
If we can produce beef and mutton up here on a winter ration as inexpensive as this one described, in combination with our wonderful summer pasture Cloverland must develop into the greatest live stock section there is in the whole United States.

Shorthorn Congress to be Held in Chicago

The third annual Shorthorn Congress, a combined show and sale, and a meeting ground for lovers of that breed from all parts of the world, will be held in the International Amphitheater in Chicago, February 17 to 19. No individual breeder or firm may exhibit more than ten animals in order that the show may have wider representation. Prizes aggregating \$5,000 in cash will be extended from fifteen to twenty places in the various classes. A program designed to appeal to all observing people whether breeders or not, has been arranged, and speakers of international reputation will be heard.

How Much Wire Fencing Are You Going to Need This Spring?

DISTANCE BETWEEN BARS—INCHES



Due to unsettled market conditions you should place your order for fencing at the earliest possible date.

WE carry a complete stock of sheep and cattle fencing, roofing, and hardware fixtures for stock sheds and ranch houses. Our warehouse is so situated within the Cloverland territory that we are able to make prompt deliveries.

Write Us Your Requirements

Northern Hardware & Supply Company

Long Distance Phone 400

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Marinette County, Wis., and Menominee County, Mich. At the Gateway of Cloverland LEARN THE FACTS

YOUR CARD will bring complete Cloverland information
FARMS—All sizes, locations, and prices, with or without stock, tools and equipment.
UNDEVELOPED LANDS in any quantity for farming, stock-raising, grazing or investment.

MENOMINEE ABSTRACT AND LAND COMPANY
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Choice Cut-Over Hardwood Lands

Especially adapted to grazing and general farming, located on trunk line railways twelve hours from Chicago markets. For sale, in small or large lots, at reasonable prices, terms to suit purchasers. For particulars write

The Northwestern Cooperage & Lumber Co.
GLADSTONE, MICHIGAN

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Calumet & Hecla Mining Company

JAMES MacNAUGHTON
Vice-president and General Manager

CALUMET MICHIGAN

20,000 Acres CUT-OVER HARDWOOD LANDS

Abundance of timothy, clover and blue grass. Well watered with spring brooks. Unequaled for cattle or sheep ranch.

Price \$7 to \$10 an Acre

Special price on first section sold. Write for further particulars and map to

E. L. STANFORD, Marquette, Mich.

SHEEP and CATTLE

Find the Best Grazing Lands in the world in Northern Wisconsin and the Upper Peninsula of Michigan.

We offer great inducements.

Write Us for Particulars

BALDWIN CORPORATION, Appleton, Wis.

Silage vs. Root Crops for Dairy Cattle

(Continued from page 35)

will prove conclusively that we can raise a silage crop which will serve our needs as efficiently and at less cost, for silage than corn.

Crops for the Silo in Northern Michigan.

The digestive organs of animals that chew their cuds are so formed as to require a comparatively juicy and bulky food. Therefore, the cow cannot thrive on an entirely dry ration as well as the horse. The most ideal food for the dairy cow, or cattle in general, is good pasture; but, for a period of from six to about seven months of the year, green pasture is not available in parts of the Upper Peninsula of Michigan. During this period, the best substitutes we have for pasture are oat and pea silage and such roots as Giant feeding beets, mangels, rutabagas, and turnips. Since oat and pea silage yields approximately three times as much dry matter per 100 lbs., three and one-half times as much protein, almost twice as much carbohydrates, ten times as much fat, and about two and one-half times as much total digestible nutrients as do mangel wurtzels; about twice the digestible nutrients of rutabagas; and, since root crops require much more labor, which in this country is very scarce and expensive, silage made from oats and peas is far more economical. Oat and pea silage is not a complete ration in itself, although the nutritive ratio is 1:5:3. It does tend to heavy milk production and economical milk can be made by feeding oat and pea silage and a legume hay without the use of much grain.

The following is a table of the digestible nutrients of oat and pea silage as compared with corn silage made from mature corn and immature corn, the latter being the only kind we can grow for silage here, and with rutabagas and mangels, taken from Henry's Text on "Feeds and Feeding."

	Dry Matter In 100 lbs. Lbs.	Crude Protein Lbs.	Digestible Nutrients in 100 Pounds				Nutritive Ratio
			Carbo- hydrates Lbs.	Fat Lbs.	Total Lbs.		
Feeding Stuff							
Oat and pea silage	27.5	2.8	12.6	1.0	17.6	5	1
Corn silage (immature)	21.0	1.0	11.4	.4	12.4	12	5
Corn silage (mature)	26.3	1.1	15.0	.7	17.7	19	12
Rutabagas	10.9	1.6	7.7	.3	9.4	8	8
Mangel Wurtzels	9.4	.8	6.4	.1	7.4	8	8

Note that 100 lbs. of oat and pea silage contains 1.2 lbs. more dry matter, 1.7 lbs. more crude protein, 3 lbs. more fat, and only 2.4 lbs. less carbohydrates than does 100 lbs. of mature corn silage. Also, that it bears out

the previous statement in regard to roots.

Winter Ration of Great Interest.

With many, too little effort has been made to keep young breeding stock and steers growing during the winter months. Cattle of this class often lose weight during cold weather and depend on summer pastures to grow. This is an expensive method of wintering cattle. Ideal conditions consist in keeping the young cattle growing on economic feeds all winter as well as in the summer. The Upper Peninsula of Michigan is noted for its productiveness of timothy and clover and, from the latter, it carries the name, "Cloverland," a cheerful name, indeed. But in fact, most people in Cloverland becloud that name by raising timothy, a poor quality of hay for cattle and especially for those of the growing age and dairy cows.

Clover is an excellent feed, ever one will agree, as a malnourished roughage. Yet, it is possible to improve and cheapen this feed by the addition of some succulence like silage or roots. This winter, several young growing bulls were fed a couple of months on mixed hay alone. They became very emaciated. Fat, which was put upon their bodies while on pasture, was taken off for sustenance and growth of bone material. Had this practice of feeding been continued, the animals would have represented simply a skeleton covered with an unhealthy skin. People who feed their cattle this way know the above statement to be true. There are many of them in the Upper Peninsula. Cattle fed this way don't grow. They cannot grow because the feed they are getting is of such nature that they can barely exist. In the meantime they are robbing their bodies of the portion of fat stored away while on Cloverland's green pastures. Are these conditions necessary? Is it impossible to feed these cattle more than hay alone? Decidedly, no.

Cloverland's rich soil is noted far and wide for its ability to produce unsurpassed yields of roots, small grain and legumes.

Other young cattle on the Upper Peninsula Experiment Station Farm of about the same age and size, fed 20 lbs. of roots, 10 lbs. of oat and pea silage, and 1 lb. of grain in addition to the mixed hay, were in good shape and healthy growing condition. They had grown to be much larger than the others because of the fact that they had been kept growing and putting more meat on their backs, so to speak, while the others were partly living on the flesh previously put on when in the pasture. Therefore, it is this additional food or succulence which is necessary to keep the young animals growing through the winter that we are all interested in. In the corn belt, people have no trouble about raising the great silage crop, but it is grown successfully in only a few parts of the Upper Peninsula of Michigan. If we have other substitutes for corn which may be used to advantage in furnishing succulence for our winter stock ration, many parts of the Upper Peninsula

(Continued on page 54)

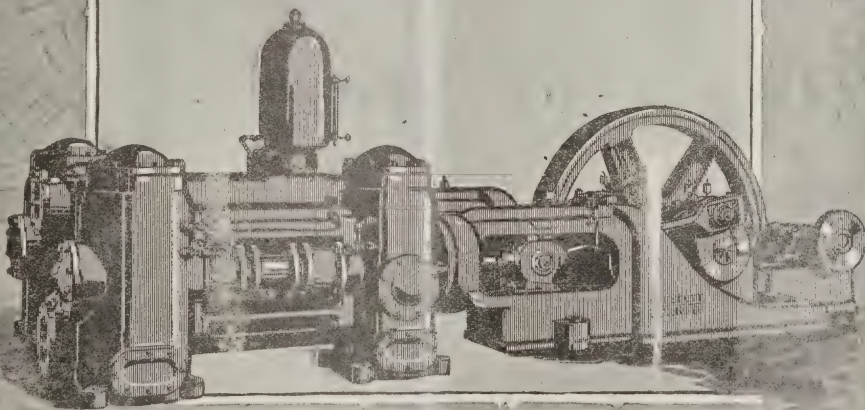
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PRESCOTT MENOMINEE

MINE PUMPS



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A DEPENDABLE RANGE

is the goal of every stockman. With a dependable range he feels sure of success and secure against future adversity. A tract of select, cut-over land in Cloverland offers stockmen this opportunity.

Tracts to Suit Needs

We have several choice ranges among our holdings which we will sell to practical stockmen on terms that will be to his advantage.

CONSOLIDATED LUMBER CO.

MANISTIQUE, MICHIGAN

"In the Heart of Cloverland"

Entire City Destroyed by Fire "Come Back" Within a Year

(Continued from page 40)

next day, driving on roads still lined with fire, the soldiers of the Fourth Minnesota National Guard came to Cloquet and took the situation in hand. Following close behind them were the trucks and vans from Duluth and Superior with food. The Red Cross, then efficiently organized for war work, took charge of the emergency measures until the Minnesota Forest Fires Relief Commission was organized and began to function, which it did in a surprisingly short time. During the immediate emergency hundreds of volunteer workers tendered their services and by their efforts accomplished almost miracles in extending assistance. An efficient organization was quickly built up and the measure of relief was put on a practical business basis.

At first this was made possible only by the generous contributions, but later the Minnesota legislature met and passed a bill appropriating \$1,800,000 for relief and reconstruction in the fire zone. Neither food, money or clothing was given out as charity or accepted as such, but represented rather the sympathy of those more fortunate and was administered with the view of re-establishing the people of the devastated area, that they might again take their places as producing members of the great commonwealth.

The effect on Cloquet was magical. Every man's head went up, and a city of shacks arose on the ashes of the burned city before snow came. To be sure, the influenza epidemic made things inconvenient for a time, but proved no deterrent to the feverish rush to build temporary homes. And snug and "comfy" these little rough shacks proved to be. The people

were eager to return and did return by scores and hundreds, schools reopened, there was work in the mills and factories which had escaped the fire formed an industrial nucleus of great importance.

Right there the future of Cloquet was determined, beyond any question or doubt. It was home to her people and they had come back home; dug in their toes and had a grin on their faces. Cloquet was "coming back." And they didn't wait for spring, either. As if by magic, permanent homes began to arise and every hand was heard the sound of building and talk of building. The limits were established for the business section, insuring better protection against another conflagration, and the appearance as well as the safety of the main parts of the city were safeguarded.

During the remainder of the winter, the permanent reconstruction was confined largely to residences, the greater portion of which on the start were homes for the employees of the Northwest Paper Company, which promptly organized a building department and handled this work for the men. Other homes began to go up here and there, and while it was at winter Johnson Brothers' store building, the Lane Hardware building at the Salem hotel, all of permanent brick construction, were gotten under way.

With the advent of spring came the real period of reconstruction. Before the frost had yet left the ground an army of workmen had started on the building of "the bigger and better Cloquet" we had all talked of during the winter, but little did we realize at at

250,000 Acres

Unimproved cut-over lands for sale in tracts to suit the purchasers

Located in fourteen counties in Cloverland — the Upper Peninsula of Michigan.

Prices \$5 to \$15

Per acre.

Terms reasonable

Write me for definite quotations, maps, etc.

J. M. LONGYEAR

Marquette, Michigan

just how much better it would be. The city became a hive of feverish industry; the debris left by the fire was speedily removed and streets and houses were piled high with building materials; houses seemed to arise overnight like mushroom, but these houses were anything but mushroom-like in their construction. It may be safely said that no permanent structure has been put up in this city but that is better, more modern in its construction and more fully fitted with those conveniences of the home that a few years ago were looked on as luxuries. The business blocks are handsome types of brick and stone construction, carefully planned for the ends which they will serve.

Looking back over the accomplish-

ments of the past year, well might we rechristen Cloquet "The Miracle City," yet the realization is borne in upon us that our work of rebuilding is far from being completed. Many fine structures are now definitely planned but as yet not accomplished, and it is a certainty that hundreds of new homes will be built during the coming year.

Yet in the years to come we will look back to 1919 as the epochal year of our civic life. The fiery test of October 12, 1918, was enough to make the stoutest heart quail, but it was insufficient to destroy the biggest and most glorious asset of our people—their indomitable courage and their unconquerable faith in their home town. No longer a dream, the "Bigger and Better Cloquet" is here.

A \$9,000,000,000 ENTERPRISE

The live stock industry is America's greatest productive, industrial and commercial business," said Mr. T. E. Gle, one of the extension men of the Colorado Agricultural College. When he backed up his statement he

if you can imagine a company capitalized at \$9,000,000,000, with 3,000 stockholders scattered from one end of the country to the other, you have an idea of the extent of this business.

There are millions of people in Europe and America who are dependent upon this industry for the larger part of their daily food. Think of the number of laborers employed on ranches and farms in the raising and marketing of the 74,000,000 hogs, 68,000,000 cattle, 50,000,000 sheep, and 25,000,000 horses and mules, the enormous finance required for operation; 1,500,000,000 acres of grazing and pasture lands used in production; the millions of bushels of grain and billions of tons of hay raised and fed. Now think of the millions of cars used in

transporting the stock to market; the huge killing, packing and storage plants whose thousands of men are employed in butchering, dressing and preparing live stock and meats for public consumption. Great strings of refrigerator cars are required to distribute prepared meats over the nation and to seaports for export."

Northern Oats Takes a National Prize

Competing against exhibitors from the United States and Canada, Charles Larson, Bayfield County (Wisconsin) farmer, took third prize on oats grown in Bayfield County at the International Grain Show at Chicago last month.

Larson owns a farm near Port Wing, where the prized oats were grown. They demonstrate what Northern Wisconsin's cut-over timber lands will do when properly cultivated. Mr. Larson took the land a few years ago as wild cut-over brush and stump land.

Oneida County Wisconsin

Where 25,000 western sheep were pastured this season

Some of these Stockmen are Wintering Here

Range for thousands more. Abundance of good water, grass and clover. Plan to graze in Oneida County, Wisconsin, in 1920, and then pick out your permanent ranch.

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RHINELANDER, ONEIDA COUNTY, WIS.**

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**Are Now Ready for the Western Grazer or
the Corn Belt Live Stock Farmer**

RANCHES OF ANY SIZE

360,000 acres of the best grassed and clover-covered cut-over lands, all watered by streams and lakes, have been assembled in Northern Wisconsin, and will be apportioned out in solid blocks to suit the stockman.

Get your location before the Spring rush is on

Write to the

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Athletic Club Building, MILWAUKEE, WISCONSIN

235,000 Acres of Cut-Over Lands

We own and offer on exceptionally favorable and easy terms 150,000 acres in Delta, Schoolcraft and Alger Counties, Cloverland, Michigan.

Also 85,000 acres in the clover districts of Northern Wisconsin.
Tracts of all sizes. Terms to suit.

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Cutover Lands

in Chippewa, Dickinson, Iron, Gogebic, Ontonagon and Houghton Counties in the Upper Peninsula of Michigan in tracts to suit

Clay loam, sandy clay loam, sand loam and sand soils at \$5.00 to \$15.00 per acre.

Generally well watered.

J. M. LONGYEAR, Agent, Marquette, Mich.

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Upper Peninsula Cut-Over Lands

Suitable for Grazing or General Agricultural Purposes

FOR SALE

in Alger, Chippewa, Gogebic, Luce, Mackinac and Schoolcraft Counties

THE Northern Peninsula of Michigan is the best Livestock and Dairy country in the United States, if not in the world. It can care for 8,000,000 sheep and 1,000,000 head of cattle.

For information write

LAND DEPARTMENT, Charcoal Iron Company of America

MARQUETTE, MICHIGAN

Silage vs. Root Crops for Dairy Cattle

(Continued from page 50)

will find the silo a paying proposition. It has been the endeavor of this station to throw some light on the Upper Peninsula silo problems through the foregoing experiment:

Beet Tops For Silage.

In 1916 silage was made out of the following crops: Beet tops, clover, corn and oats and peas, while there remained some ensilage made from alfalfa in 1915. The ensilage made from the beet tops was mostly of poor quality, largely because of having so much sand. In this part of the state, it is very difficult to prevent sand and other soil particles from adhering to the beet leaves owing to the frequent rains and occasional snows during the seasonal period when beets are harvested. This is the greatest objection we have found to beet tops for silage.

The Clover Silage.

The clover silage was made from the second cutting of June clover and was of fair quality. The cows relished it very much and gave a good flow of milk while being fed on it. But, because of so many failures reported as having occurred with this plant, it would be inadvisable to advocate making ensilage from it unless weather conditions prevented one from making it into hay. When necessary to make clover into ensilage, it is advisable to mix it with some plant that carries less protein and more sugar as green rye, barley, or oats. The same is true with other legumes as alfalfa and soy beans. If not ensiled with some plant carrying more sugar, a silage commonly said to be sour is likely to occur.

The Corn Silage.

The corn silage was made from corn which had grown to the stage of roasting ears, a state of development which is rarely exceeded in this part of the Upper Peninsula. Generally, corn is caught by frosts about the time it begins to tassel and form silks, and sometimes the corn crop is killed by frosts before this period in its life is reached. Corn has not been known to mature successfully on the station farm or in its near vicinity within the last fifteen years. For the last two years, weights have been recorded on the silage corn yield per acre. In 1916, the average yield was 4 tons per acre. In 1917 the average yield was 2.21 tons per acre. The

average for the two years was 3 ton per acre. It will readily be seen the corn is not a success in this part of the country. This necessitates getting a substitute crop for ensilage.

Best Results From Oats and Peas.

Oats mixed with Canadian field peas in the proportion of one bushel to one and one-half bushels of oat per acre have been raised successfully on the station farm for the past two seasons. They were seeded with grain drill the same as most farmer seed oats or other small grains alone. I prefer the above ratio of seeding a neither is crowded for growing space. Oats, when seeded with peas in this manner, serve as a support to keep the pea vines off the ground, hence improving the quality of the peas as roughage.

The oat and pea crop raised for silage in 1917 yielded 65.5 tons from 6.41 acres, or an average of 10.23 ton of ensilage per acre, and 6.14 ton per acre in 1918, an average of 8.2 tons. The crop was harvested when the oats were beginning to turn and considerable amount of water was added to the silage material at the time it was run through the ensilage cutter into the silo. Too much emphasis cannot be laid on the necessity of using plenty of water. Ensilage made from this crop, as above described, is of good quality, had kept in fine condition, is entirely eaten by cattle, helps keep down the cost of rations for both dairy cows and young stock, helps to fill the milk pail, and keeps the stock in prime condition. Under our northern conditions it has given the best results so far both in yield and quality. I do not advise anyone sure of good corn for ensilage to change to oats and peas. However, I do believe that many in this part of the state would be benefited if they would divert their labors raising oats and peas for ensilage instead of corn, as they would be more sure of a better crop, a larger crop and a cheaper crop.

This article was written for the Hoard's Dairyman and published in their issue of March 22nd, 1921. With their permission I am using in connection with this work.

Note. Our crop for 1918 was so good being sown on low wet land which was very foul with quack grass. The yield was 6.14 tons per acre. The silage made from it was not of the best quality.

WHAT THE

I. Stephenson Company Trustees

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—Choice of 400,000 acres of land at prices ranging from \$20 to \$30 an acre for cut-over land.

—A climate the same as upper New York, northern South Dakota and central Minnesota—this district is 600 miles south of the much advertised wheat belt of Canada.

—A variety of soils fit for all crops grown in the north temperate zone.

—Good roads, good schools, good water and climate.

—Home markets that now are forced to depend on outside communities for much of their food.

—Railroad service that brings 10,000,000 people within a night's ride for farm products, and the equal of that afforded the farmers of Indiana, Illinois and Iowa.

Fruit, Dairying and Live Stock,
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—An unsurpassed fruit country, protected by 1,000 miles of shore line along Lakes Michigan and Superior—a practical insurance against frost damage. A choice of five lines of farming.

Improved LANDS Cut-over VAN ORDEN BROS.

Houghton

"Cloverland"

Michigan

Land Opportunities for 1920



NEVER in the history of this country has there been such an awakening to the possibilities of land ownership as today. The entire agricultural sections of America have realized an advance in the price of their lands. As is usually the case, the developed country advances in price first, but as sure as this advance comes, as it certainly has in the entire Northwest, the reaction is felt in unimproved lands the following year. We wish to bring this home forcibly to the man who is considering the purchase of cheap land for grazing purposes. To those who came into our country during 1919, the best we can say is they were fortunate, and during 1920 new grazers and cattlemen will still be able to find ideal land for their purposes at attractive prices. Any further delay on the part of such buyers will be costly indeed.

It is common knowledge among all those familiar with land values that in very many instances throughout the Northwest the improved lands have advanced during 1919, **ONE HUNDRED PER CENT**, and in 1921 it is safe to say there will be an advance of at least One Hundred Per Cent in cut-over lands over prices prevailing during 1919.

THE NORTHERN MICHIGAN LAND COMPANY wishes to announce through the Cloverland Magazine that our prices for 1920 have not changed materially over 1919 and we are ready to take care of the buyer of large or small tracts along the same lines as advertised in this medium during 1919.

We have had hundreds of inquiries from the mid-west during the past year, some who have already made their purchases and others who contemplate so doing in 1920. We wish to call your attention again to the necessity of **ACTION** if you wish to secure a dependable range in a proven country and at a price that you can afford to pay. Our new literature on individual tracts, financial assistance and general information is out and a letter stating your needs will bring it. **WRITE TODAY.**

NORTHERN MICHIGAN LAND COMPANY

605 Pioneer Bldg.
ST. PAUL, MINNESOTA

309 Caswell Block
MILWAUKEE, WISCONSIN

Cloverland Bargains

Rate: 5 cents a word for each insertion. Copy for the Cloverland Bargains column must be in the office not later than the first day of the month for publication in the current issue. Address all want ads to Cloverland Magazine, Cloverland Bargains Department, Menominee, Michigan.

FOR RENT—Cattle Ranch, with or without stock and tools. For particulars address Horse-Shoe Ranch, Cloverland Magazine, Menominee, Mich.

GET OFFICIAL INFORMATION regarding soils, climate and crops of Price County, Wisconsin, from the Representative of the College of Agriculture and the U. S. Department of Agriculture. Improved, partly improved and undeveloped land \$10 to \$100 per acre in Price County. Most rapidly developing live stock, dairy and general farm country in the clover belt of Wisconsin. Write H. J. Rahmow, County Agricultural Agent, Phillips, Wis.

A FINE FARM FOR SALE—280 Acres, one mile west of Carney, Michigan, which has good schools and a creamery. 150 acres of this land is cleared; has a good house and hay barn and small orchard, plenty of running water all the year. Undeveloped land is well seeded to grass; the soil is clay loam. There is not an acre of poor land in the farm. Easy terms. Address Box 55, % Cloverland Magazine.

WANTED—Several farms adjoining a lake in Central or Northern Wisconsin. Some buyers want 80, others up to 400 acres. Must be partly improved and with stock. Walter Miller, 320 Brumder Bldg., Milwaukee.

FOR SALE—400 Feeding pigs, eight weeks old, at \$9 each, delivered. Booking orders now for May delivery. Ernest Dutcher, Whitewater, Wis.

HIGH GRADE Holstein or Guernsey calves, either sex, 6 to 8 weeks old, \$30 each, delivered. Ernest Dutcher, Whitewater, Wis.

FARMS FOR SALE—144 Marathon County Farms we offer at a reasonable price. Write for list. Prehn Land Co., Office over 5c and 10c Store, Wausau, Wis.

FOR SALE—37-Acre farm located in North Central Wisconsin now being operated as sheep ranch and general farming—have 400 sheep now, 120 tons good hay—necessaries—implements—horses, etc. Good soil for all grains and hay—raised 200 bushels potatoes per acre this year—fenced and cross-fenced complex with water wire, excepting 40 acres—new sheep sheds—other buildings in fair condition—approximately 50 acres under plow, 100 acres brushland and in pasture balance light growth of brush with excellent pasture—Land is capable of pasturing 800-1000 sheep—Large sheep raisers now buy. Due to inability to live on farm will sell farm, live stock, hay, grain and implements as a whole or in part. Write for details. F. A. B., care Cloverland Magazine.

CAN HANDLE several farms of 120 to 240 acres if partly improved. Fair buildings, stock, etc. Parties prefer Central and Northern Wisconsin. Walter Miller, 320 Brumder Bldg., Milwaukee.

AMBITIOUS young man desires position on modern sheep farm or ranch. Plenty of experience and three years of agricultural college training. W. B. Koehler, Menominee Falls, Wis.

ATTENTION—Carley and Keen of Limestone, Mich., after trying out Cloverland have just purchased through me 720 acres and will begin clearing and erecting buildings for feed and housing at once. This proves the possibilities of Cloverland. William J. Weston, Oak Ridge Dairy, Wakefield, Mich.

FOR SALE—140 Graded Merino breeding ewes. They are young and large and shear exceptionally heavy fleeces. Are in excellent condition. \$12 a head, Lakewood, Wis. Address, Wallace Bros., Lakewood, Wis.

INFORMATION FOR THE ASKING—Chippewa County, the county of a million acres, presents wonderful opportunities to the cattle raiser, dairyman and general farmer. Sault Ste. Marie—its market, with lake and rail transportation, a wealth of forest products and cheap electric power (13,500 h. p.) is destined to be the most important manufacturing center of Northern Michigan. For information and booklet write Civic and Commercial Association, Sault Ste. Marie, Mich.

HEWLETT buys and sells sheep. 1,000 good 2-year-old ewes for sale now—prompt delivery. If you have any sheep to sell or want to buy, write F. R. K. Hewlett, Lake Ives Ranch, Big Bay, Mich.

IDEAL SHEEP LAND—Fertile soils that grow corn, wheat, oats, barley, peas, vetch, clover, alfalfa, fruit and vegetables. In 1,000, 2,000 and 3,000 acre tracts, the smaller if desired \$10 to \$15 per acre, easy payments, interest 6%. Easily cleared, well grassed and watered by small lakes and streams. Located in the heart of Lower Michigan's clover seed belt. No cash payments required if responsible purchaser will grow annually 4 per cent of acreage to clover and apply proceeds from seed yield upon payment of land until paid for. Clover seed one year after another in Presque Isle County nets growers \$100 an acre. John G. Krauth, Millersburg, Mich.

FOR SALE—80-Acre farm, 40 acres under cultivation; good clay loam soil; 8-room house; barn; good well water; good fences; located 7 miles from Menominee on fine macadam road to city. A splendid farm and a bargain on easy terms. S. V. Tart, 2007 State St., Menominee, Mich.

COLLECTIONS—The Cloverland Mercantile Agency, Law and collections everywhere. Address, John L. Loell, Legal Department, First National Bank Bldg., Escanaba, Mich.

FOR SALE—Any part of 100,000 acres stock lands or farms in Michigan or Wisconsin. Write for books and prices. Menominee Abstract & Land Company, Menominee, Mich.

INFORMATION FREE—Anything you want to know about Wisconsin, its resources and opportunities will be cheerfully given upon request. Milwaukee Chamber of Commerce, Athletic Club building, Milwaukee, Wis.

UPPER WISCONSIN, 1,000 acres, solid body, within 4½ miles of county seat. Vagon road through it, choice cut-over hardwood land. Will sell, lease or go in on shares with parties owning cattle, sheep or goats. For particulars write McGovern Land Co., Florence, Wis.

FOR SALE—We own 15,000 acres of cut-over lands in Dickinson, Baraga, Menominee, Iron, and Gogebic counties in the Upper Peninsula of Michigan; 20,000 acres in Forest and Florence counties, Wisconsin. Any size tract on easy terms. J. W. Wells Lumber Co., Menominee, Mich.

STOCKERS AND FEEDERS—Our men being always on the market know values and available offerings, and are therefore in a position to supply your wants to the best possible advantage. Chey. Robinson & Co., Chicago, South St. Paul, Kansas City, Omaha, St. Joseph, Sioux City, St. Louis, Denver, Buffalo, Ft. Worth, El Paso.

FOR SALE—We have tracts of cut-over lands of all sizes for practical stockmen who want to succeed in a permanent manner. Consolidated Lumber Co., Manistowick, Mich.

FOR SALE—Choice cut-over hardwood lands, especially adapted to grazing and general farming. Small or large tracts at reasonable prices, terms to suit purchaser. Northwestern Cooperage & Lumber Co., Gladstone, Mich.

WE ANSWER QUESTIONS—If you want to know anything about Cloverland, write to John A. Doelle, Secretary-Manager Upper Peninsula Development Bureau, Marquette, Mich., an organization not organized for profit.

FEEDS OF QUALITY—Ask your dealer for "The Albert Dickinson Company" brands of grass and field seeds, poultry and stock feeds.

FOR SALE—Upper Peninsula cut-over lands suitable for grazing or general farming, in Alger, Chippewa, Gogebic, Luce, Mackinac and Schoolcraft counties. For information write, Lumber Department, Charcoal Iron Company of America, Marquette, Michigan.

FOR SALE—80 acre farms of good land, 10 acres cleared, house, barn, team of horses, two cows, chickens, implements; small cash payment and 15 years to pay balance. A chance for the man of many means to get a start in farming and own his own farm. Northern Michigan Land Co., Grain Exchange building, St. Paul, Minn., or 309 Caswell block, Milwaukee, Wis.

RELIABLE INFORMATION on prices, terms, and condition of cut-over land in Northeastern Minnesota; grazing tracts range from one section up 100,000 acres; free grazing option-leases, all handled through the Commercial Club of Duluth without profit. Our object is to offer every inducement for live stock men to use our idle lands. For details and information address, W. I. Prince, Secretary Commercial Club, Duluth, Minn.

CHIPPWEA COUNTY—The county of 1,000,000 acres, the granary of the Upper Peninsula of Michigan, invites inspection by grazers, settlers and horse seekers. Address, Charles E. Chipley, Secretary Civic & Commercial Association, Sault Ste. Marie, Mich.

FOR SALE—250,000 acres of unimproved cut-over lands in tracts to suit purchaser. Prices \$5 to \$15 an acre, terms reasonable. Address J. M. Longyear, Marquette, Mich.

FOR SALE—We own grazing lands in the great open areas of Cloverland, where natural grass settings are found. We can offer you any size tract desirable. Write for full particulars. Baldwin Corporation, Appleton, Wis.



These companies were the first to bring cattle to its cut-over lands, and carry on profitable and successful grazing in Cloverland.

WE offer the western grazers their choice of 75,000 acres of cut-over lands in Cloverland; 25,000 in Northern Michigan; 50,000 in Florence and Forest Counties, Wisconsin.

Several ranches were selected and taken over last year by well-known western cattle and sheep men.

Write us for particulars or come and see these lands for yourselves.

J.W. WELLS LUMBER CO.
MENOMINEE, MICH.

GIRARD LUMBER CO.

J. W. Wells, President

DUNBAR, WIS. MENOMINEE, MICH.

Think About Fence Posts Now!

THIS is the time when farmers plan the years work—changes they are going to make—improved methods they are going to adopt. Just the time to stop and think about fence posts.

It used to be wood posts—now RED TOP Steel Posts are the standard. There must be good reasons why thousands of farmers have adopted RED TOPS. There are.

They have taken the drudgery out of fence building. They make a strong, durable, clean fence line.

RED TOPS are easily and quickly set—*drive like a stake*. They hold their place—*anchor like a rock*. No bending, buckling, breaking, burning or rotting; *a minimum of upkeep*. They protect the stock from lightning.

And RED TOPS actually cost less in place than wood or concrete posts.

Send for booklet today, giving the whole story on Red Top Posts.

If at any time your dealer cannot supply you with RED TOPS, write direct to us.

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*The Fastest Selling Coffee
in Cloverland*



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MENOMINEE and ISHPERING, MICHIGAN

Roasted and Packed by

THE MICHIGAN
COFFEE & SPICE
COMPANY

Menominee, Michigan

CLOVERLAND

MAGAZINE

10c The Copy

March, 1920

*Read
NEW LIFE
in this issue*



What would happen to the heavy winter markets if it were not for the packer?

All over the country, during the fall and early winter, stock raisers reduce their herds.

The result is, millions of animals are marketed.

The heaviest shipments of the year are made at this time. With stockmen sending in shipments faster than people eat meat, the market naturally becomes overcrowded.

It is the packer who steps into the breach.

His facilities for dressing and refrigerating thousands of animals, for curing hams and bacon, and his national distribution system insure the stockman the best possible cash market for his animals.

Without these packing facilities, the market would be glutted. By absorbing the excess numbers of live stock that are shipped to the stock yards in the cold months, the packer gives the stockmen vital support at one of the most critical times of the year.

He also performs a distinct service for the consumer by conserving the surplus meat at the heavy marketing season for the period when live stock receipts are light.

Swift & Company, U. S. A.

Founded 1868

A nation-wide organization owned by more than 30,000 shareholders



Oneida Trucks Are Fleet Builders

ONEIDA, with reasonable pride, points to numerous truck fleets which have grown from single Oneida installations. Like the single acorn which gives birth to a great and valuable forest, the first Oneida truck purchased by many concerns has been the foundation of great and profitable truck fleets.

THE wise choice of the first truck has meant business expansion which necessitated more and many more trucks. A large percentage of the output of Oneida's Cloverland factory goes to companies and individuals who already own Oneidas. Choosing the second and later trucks is a simple matter, but in buying the first truck you may need some expert help. 'Phone, wire, or write, or better still, come to Green Bay "in Cloverland" and visit the factory. Courteous attendants will show you through and sales are never mentioned without the visitor's request.



ONEIDA MOTOR TRUCK CO.

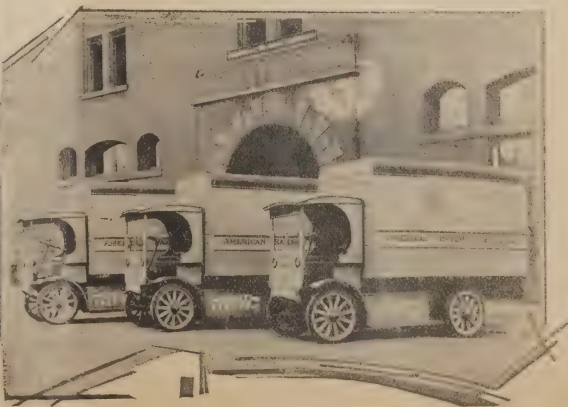
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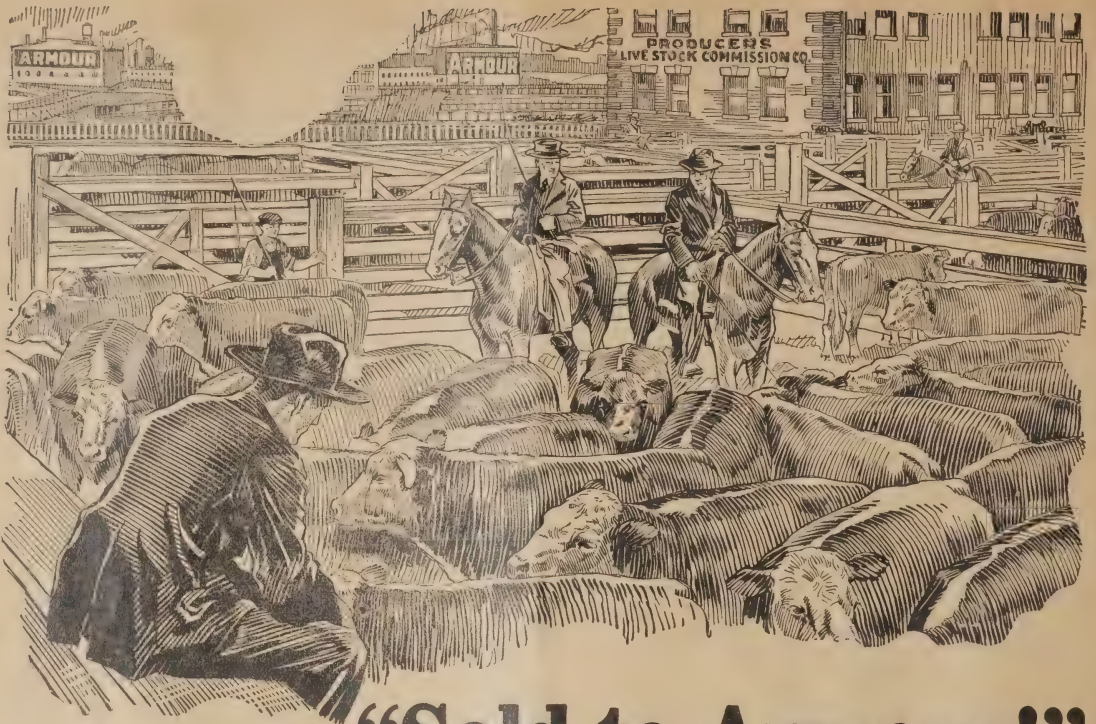
GREEN BAY, WISCONSIN

ONLY AMERICAN MANUFACTURERS
OF BOTH GASOLINE AND ELECTRIC
COMMERCIAL CARS

Oneida Trucks Are Fleet Builders

"The Cloverland Express." This company
has ordered 18 Oneida Trucks





“Sold to Armour!”

YOU sit on the fence, looking at the bunch of cattle you have just brought into the yards from your farm, perhaps hundreds of miles away.

Down the alley, on horses come two men—your commission man and a packer's buyer. They enter the pen; after exchanging a few remarks, the buyer bids on the cattle. The commission man nods his head, knowing he has got the best possible price. The deal is over.

“Sold to Armour!” Your cattle—worth thousands of dollars—sold in perhaps two minutes. It took four years to raise them, three or four years of work, investment, expense. Now with a nod of the head and a notation on paper, *they are sold*.

Is this selling done too quickly, too superficially?

Big things, costly and slow of achievement, are behind this quickly closed deal on your livestock. The experience of ten, twenty or thirty years of daily buying and selling livestock guides these men who deal on your cattle. They are experts—specialists—in their line. The Armour buyer has his orders to get a certain number of good cattle at prices dictated by the condition of the dressed beef market. The commission man is bound by the necessity of getting the highest prices for you. The buyer could not make many mistakes and hold his position long, neither could the commission man lose money for you and hold your account.

This system of selling livestock has proved itself the best means yet devised for accomplishing the purpose. Livestock must be marketed as soon as possible after it has reached the yards; speed in selling is a necessary result.

For cattle which Armour and Company buy of you, you get spot cash the same day they are sold. Your shrinkage is at a minimum, you are saved extra feed costs, and not a minute of your time is unnecessarily consumed. This efficiency of Armour and Company holds not only in the buying of livestock, but also at every other step in the processes of preparing and distributing food products.

ARMOUR AND COMPANY
CHICAGO



This is the mark under which your best products reach the consumer

CLOVERLAND **MAGAZINE**

REGISTRATION OF TITLE APPLIED FOR TO U. S. PATENT OFFICE

Published Every Month at Menominee, Michigan

XIII No. 3

MENOMINEE, MICHIGAN, MARCH, 1920

\$1.00 A YEAR, 10¢ THE COPY

MORE'N JUST WORK

SOMETIMES it kinda seems there ain't much 'round the farm 'cept just work.

I gotta bring in the wood, an' help with the chores, an' carry milk over to the Hawkines, an' run over to see how Griny is, an' —an' everything.

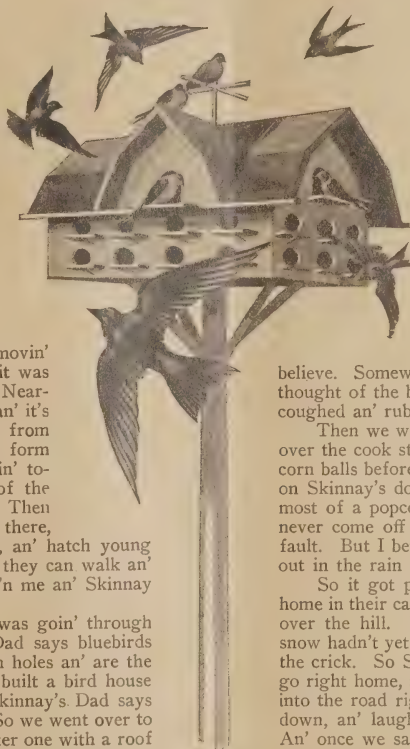
Dolly has a new calf. New calves look so an' foolish, like s'if maybe they'd fell on their heads. They look like the way I felt when Skinnay hit me in the stommick with a baseball. But this mornin' Dolly's is jumpin' around an' sniffin' at the bedding an' every little while it pokes its nose against a timber or something an' then jerks like as if it got a terrific shock or somethin'. I guess maybe it's a pretty good calf; I bet it's better'n that wild calf of Skinnay's.

This morning I saw two long, black lines movin' across the sky. Skinnay says his Dad told him it was geese. He says geese live down in a place called Near-the-Gulf-of-Mexico, where it's warm all winter; an' it's more than one or eleven thousand miles away from here. But in spring, Skinnay's Dad says, they form two long lines, with a leader who starts the flyin' toward the grain fields of Dakota or the lakes of the North Woods. I bet he's some wise old leader! Then they find old osprey nests, or hollow stumps, an' there, Skinnay's Dad says, they lay four or five eggs, an' hatch young goslings which never come back to the nest 'cause they can walk an' swim so good. I bet they can't swim any better'n me an' Skinnay when the ice melts down on the crick.

We went down there yesterday an', as we was goin' through the orchard, there was a bluebird. Skinnay's Dad says bluebirds are the first birds of spring. They build nests in holes an' are the tamest of all our birds. So Skinnay an' I built a bird house out of a tin can, like we saw in a book. But Skinnay's Dad says we would roast a bird in a tin house like that. So we went over to Skinnay's house an' his Dad helped us build a better one with a roof on it. He told us that bluebirds eat insects an' things, an' especially things that destroy fruit. But I bet they don't eat yellowjackets. A yellowjacket's sting is bad enough on a feller's foot, let alone in the middle of the inside of the stommick.

Then Skinnay's Dad helped us build a martin's house; 'cause martins come right after the bluebirds an', Skinnay's Dad says, are the best birds the farmer has. I bet our farm'll be the best in Fern County when we get that martin house up.

My Dad has promised me a gun. He says I c'n shoot the varmints in things that live in the hedgerow, an' especially crows an' owls an' snakes. But Skinnay's Dad says that crows eat a lot more beetles than they do corn, an' owls catch mice and gophers an' everything, and hawks eat as black as they're painted, either. So I don't know if I'll shoot for much or just hunt bears. Skinnay's Dad says we ought to give the remaining wild things a chance to live, but I don't know if he means to bug, too, because there seems to be quite a few left.



We all went over to Skinnay's house last night. There's trees an' everything around his house, an' there's bird houses in 'em, that his Dad made; an' the light shined through the windows when we drove up an' Skinnay's Dad and Mother came to the door to meet us, an' —an' I like to go to Skinnay's house.

We all had supper an' Skinnay's Dad told funny stories, at some of which we laughed. An' then we all went to the piano an' Skinnay's mother played an' sang; an' by an' by Skinnay he sang, too; an' then I sort 'a hummed with 'em, an' pretty soon I was singin' too. An' then when we had sang "The Long, Long Trail," Skinnay's mother played "Silver Threads Among the Gold," an' when I looked there was my Dad singin', too—which I didn't believe he could, nor he didn't, neither, I don't

believe. Someway, when Skinnay's mother finished singin' I kinda thought of the bluebird again; an' Dad he blew his nose hard, an' coughed an' rubbed his eyes.

Then we went out to the kitchen an' we popped a lot of corn over the cook stove. An' we made syrup an' I tried to make popcorn balls before the syrup was cool. So I wiped the hot syrup off on Skinnay's dog; an' for the rest of the evening Rover had the most of a popcorn ball stuck to his neck. Skinnay said it might never come off an' Rover'd have a stiff neck, an' it'd be all my fault. But I bet he c'n get it off if he'll roll in the grass or stand out in the rain awhile.

So it got pretty late, an' Skinnay's Dad said they'd take us home in their car. When we got outside, the moon was just comin' over the hill. We could see across the fields where patches of snow hadn't yet all melted off; an' into the woods, an' way over to the crick. So Skinnay's Dad said the night was too wonderful to go right home, so we drove over to the bluffs. Once a rabbit ran into the road right in front of the car, an' Skinnay's Dad slowed down, an' laughed while the rabbit just ran along ahead of us. An' once we saw something scuffin' along in a field, an' Skinnay bet it was a bear. I bet it was a wolf or maybe a chipmunk. But Skinnay's Dad said he probably thought it was a raccoon, an' so I guess that's what it was.

An' then Skinnay's Dad he stopped the car real sudden an' said: "Listen!" So we all listened an' heard, way up in the sky, somethin' say, "Cheep—Cheep"; and then somethin' answer, "Cheep—Cheep."

An' Skinnay's Dad said it was the migration of the birds, an' told us how they fly in big flocks at night, an' nobody knows how they c'n see or find their way, but every year they start from the Far-South, an' move all night an' then some morning, the trees around us are full of them. An' he said he thought those we heard were the warblers.

Well, on the way home Skinnay's mother began to sing again, an' soon we were all singin'. When I heard Skinnay's mother I thought of the bluebird again. An' I kinda settled back in the seat an' my mother happened to get her arm behind me an' —an' so I whispered:

"There's lots 'round the farm 'cept just work, ain't there, mother?"



CLOVERLAND MAGAZINE

NEW LIFE

By H. H. BRYANT, D.V.M.



SOMETHING beckons the doe, in springtime, to deep forest recesses, where there is solitude. She emerges with a fawn by her side.

Thus New Life comes to the forests; it is wonderfully simple.

Shelter the doe; house her in a warm barn; keep her quiet all day, in a narrow stall; feed her heavily—and New Life won't have so easy a time of it.

Nature demands hardship; she punishes indolence. The horse, the cow, the sheep and the pig are indolent—as compared with the terrific demands made upon wilderness creatures.

So when New Life comes to the farm there are complications.

In the next month or two thousands of long-legged, wobbly, wondering creatures will stumble out of sheds and barns. Other thousands of equine and bovine mothers will go through periods of pain and will die. Man can save many of them.

For instance, there's the mare.

A lot of things are done to her that make the birth of her colt a serious rather than a happy occasion.

She is tied in a stall; she isn't exercised; she is overfed; she isn't cleaned; she is made to breathe im-

pure, air. Then when the colt is ready to introduce himself he brings travail.

The successful breeder will tell us how he drove the roan mare into the barnyard, got her out of the shafts—

"And do you know, sir, that mare just naturally gave birth to the finest 'upstandin' colt in the state, sir, right there in the barnyard before I could get the harness off'n her!"

He kept her moving—that's all. He didn't overtax her; he avoided sudden

strains, muddy roads and heavy snow; nor did he ask her to start a three-ton load. But he worked her steadily, not fearing moderately heavy strains, including the plow, for instance, on land not too stony. When the time came he couldn't get her out of the harness. He didn't exactly want it to happen just that way; he intended to get her into a box stall. But it didn't worry him any; better so, than too much stall.

Exercise alone, however, isn't life insurance for either the colt nor its mother. Food pays a share of the premium.

The mare needs a daily ration of hay—good, clean stuff, and not too much of it. She needs a light ration of oats, consistent with the exercise she gets. And she needs a bran mash about once a week; perhaps more often, if the laxative effect isn't readily apparent.

It is easier to overfeed than underfeed. Trouble much more often follows too much food, than too little of it. That is worth remembering.

A clean barn, a good stall and pure air usually will do the rest. Filth doesn't help animal life any. Infections and a lot of other evils grow in it. So the stall needs a real cleaning,

every day, not just a surface renovation with a little straw to bury the refuse underneath, but a real cleaning. Old bedding, if really unsoiled, can be forked aside and re-used. The unclean portions must be removed; the floor must be scraped with a shovel and dried if possible; an occasional dressing with slaked lime isn't bad; then there ought to be plenty of fresh, new bedding.

The stall itself ought to be a box stall—especially during the three or four days that precede the colt's coming. A box stall is any roomy space, where the mare needn't be tied, and in which she can turn around. It ought to be just fairly warm, and of course, really fresh air ought to pervade it.

Then, some day, the mare will be restless. She will lie down, by and by, and in fifteen or twenty minutes New Life will have come to the farm.

Sometimes the minutes slip by without this prompt result. Then somebody gets a rope; or perhaps a wire-stretcher; or maybe a block and tackle.

No straight-thinking colt will ever thank those who helped him into the world with ropes, wire stretchers, tackles, or even human brawn and muscle. As for the roan mare: what she wants, if a half hour or more has slipped by, is skilled veterinary assistance.

The birth of a colt is a quick and comparatively easy process; if it isn't then something is seriously wrong; and correction then calls for brains, not brawn. Get the doe!

But usually there isn't any trouble. The roan mare gets up, looks down upon her acquisition, and calmly assumes the duties of motherhood.



As for the colt—sometimes quick to assume his new responsibilities, sometimes he isn't. If he isn't, he has perhaps begun life by coming to death. Often membranes, or membranes, or membranes, or membranes get into his nostrils. It's worse than you can see that he can breathe freely. Then, if he isn't able to hurry away from his first meal by himself, he ought to be helped. Nature has specially prepared this meal for him. She has provided a mildly laxative potion, known as colostrum, that sends the new blood through his veins, and starts his intestinal functions. So he ought to get this first meal within the first hour of life—and if, in that period, he doesn't go after it, human guidance may help him.

In the meantime filth mustn't be allowed to spoil this meal. If the mare were out in the forests, like the doe, there wouldn't be any filth. But she has been down on the barn floor, in the barnyard, or perhaps in a shed pasture. So a thorough cleaning with warm water, is the proper thing. Too often the colt, instead of getting his first health from this first meal, gets his first illness with it. Colts one hour of age, aren't constituted to digest barnyard filth.

Now, what about the cow—es-



CLOVERLAND MAGAZINE

the dairy cow?

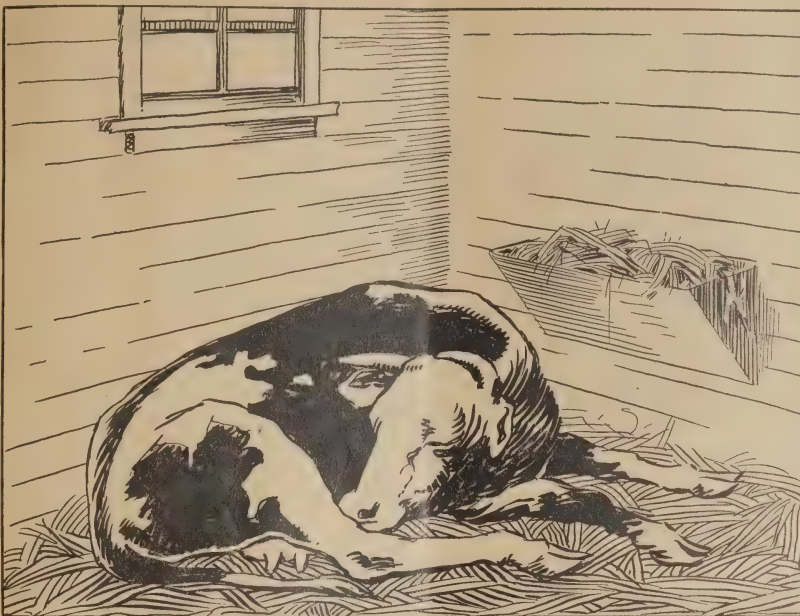
For general, preliminary requirements are the same—light, laxative food, cleanliness, fresh air, and exercise. What's the difference? You can't exercise a cow. You can't hitch a cow to a bob sleigh, nor can you hurry. The most you can do is to let her choose herself. So every day, up to the barn, last, the cow would get out, move around, eat a little hay, and out-of-doors if the weather isn't too severe, and get her milk, and drink from an open door (but heated).

That's about all that can be done to exercise a cow. Therefore the danger of food becomes an important even in the case of the dairy cow. One breeder says his cows nothing but straw for several weeks previous to milking. That's probably going too far. It is, however, that he adopted this method, he has never had a case of milk fever, whereas his neighbors who have had mighty little trouble otherwise.

(Good hay, in limited quantities, should be fed a bran mash, either daily or two or three times a week, is beneficial. Silage, if it is not moldy, does no harm provided the quantity isn't too great. And that, with a lot of water, is about all that is necessary.

When the cow shows signs of restlessness she, too, will do best in a stall. She will lie down many times and get up and move restlessly around. This she may do for three days, or five or even six. If then, however, the dairy herd has not been increased by one calf, it is time to call the veterinarian.

In the meantime some help may be needed. It must be careful help—not force. A gentle, steady pull upon the calf's forefeet timed to the efforts of the cow, may be exercised. Before attempting, the position of the calf should be determined. It may



Milk Fever—the Spectre of Every Dairyman.

be raised, and doubled back. If that is the case, get veterinary assistance.

Usually there will be no trouble, and a new calf will be wobbling about inside of an hour or two. Then clean up! That is the first step in the proper care of mother and offspring. Do it immediately.

Let the cow lick her new dependent into a state of warmth and dryness. The youngster ought thereafter to be ready for a first meal. See that he gets it. He may take it from a pail, if the practice of immediately weaning the calf prevails; but he ought to have this first milk.

Thereafter the calf may well shrink into the memory's background. It's the cow that needs watching. For a cow comes that dairyman's spectre Parturient Apoplexy, or Milk Fever.

The cow becomes restless; she refuses to eat; she stops chewing her

cud; she lies down. Gradually she sinks into a stupor; seems to get cold; her pulse gets sluggish and her temperature low. Then her head goes back toward her flank and stays there—in the characteristic attitude that every dairyman knows.

At about this time the really wise dairyman beats it for the telephone and yells for the doctor. The unwise rushes for the bicycle pump. He frantically attempts to drive air into an inflamed udder, generally with feeble results. Or, if he gets the air into the passages, he also manages to inject a miscellaneous lot of knick knacks that are lying around the barn—with the result that the cow recovers from milk fever only to decline under a sprightly attack of acute mammitis.

The air cure, administered under proper aseptic conditions, and with

proper instruments, is the best cure. And, in emergency cases, where skilled help is not available, the bicycle pump has its uses. It is, of course, better that the dairyman try the pump, rather than let the cow die for lack of the attempt. But if a veterinarian is within telephone call, he's the man to make responsible.

Milk fever descends upon the heavy-milking dairy cow with astounding swiftness. It kills without delay. But no less astounding is the quickness of its rout by one skilled in the treatment. A cow that seemed gasping for one last, forelorn breath will calmly stow away a brand mash a short half hour later.

So, though milk fever symptoms must be recognized and require quick action, the disease will kill but few dairy cattle if qualified men are called in promptly.

Of course, there are other difficulties that may complicate the arrival of either colt or calf. Most of them call for but one course of action—a trip to the telephone and a message to the veterinarian. Only the normal process of birth can be safely handled by the layman. He can, and should apply antiseptic to colt or calf, and thus prevent infection through the lesions that remain for a few days after prenatal existence has been broken. Tincture of iron, lysol or a creoline solution will do for this purpose. Beyond that the farmer cannot safely go into medical or surgical treatments. Of course, domestic animals come through all right even after certain rough and ready methods and remedies have been tried upon them. Therefore we sometimes find the skeptic who says:

"Shucks! See that there gray mare? Well, last spring John an' I took her colt with a rope, hitched around the

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Alfalfa — Spring Seeding

By R. A. MOORE and F. L. GRABER
University of Wisconsin

IT IS not intended to urge the growing of alfalfa on every farm, for there are large areas where clover is a more profitable crop. The greater portion of Northern Wisconsin, Michigan and Minnesota, where much of the land is newly cleared, grows clover like a weed. That alfalfa can be grown there with the use of lime and inoculation has often been demonstrated but with clover so abundant and so luxuriant in both forage and seed production, and so certain and easily established without the extra precautions often required by alfalfa, the northern farmer recognizes clover as his best hay crop.

On the other hand, in parts of the southern halves of these states alfalfa grows like a weed. In other parts clover does not grow as it did when the land was new. It is often hard to get a stand of red clover. Some say the soil is "clover sick," which nearly always means a lack of lime. Under these conditions, and especially where liming is practiced, alfalfa may prove a much more profitable crop because of its higher yield and greater permanence. A good stand of a hardy variety of alfalfa may last many years and abundant crops of hay can be obtained at no other expense than the initial cost of seeding and the annual harvesting. A crop like red clover, which usually lasts but one year after

seeding, must be plowed and reseeded later in the rotation. Over a period of years much more labor in the way of frequent seed bed preparations is involved.

In growing alfalfa choose a sloping soil. Avoid heavy flat land with a hard pan subsoil that does not permit good under-drainage. A mixture of timothy and alsike is the hay crop for such conditions. Alfalfa must have both good surface and good under-drainage. It likes a gravelly limestone subsoil best. Sometimes it grows well on rich bottom lands or on black flat prairie loams that have thorough under-drainage; but in certain years it will suffer severely from ice sheets and other winter injury on any flat ground. Better choose a sloping field.

Select reasonably rich soil. It is a waste of time and money to attempt growing alfalfa on a worn-out piece of land. If the soil is not fertile, a good topdressing of manure and, in many instances, an application of phosphate fertilizer, would help immensely to increase the yields.

"Lime, inoculation and manure make alfalfa doubly sure," is particularly true on poor soils. On very thin, rocky limestone ground, sweet clover may prove much better than alfalfa, especially from the standpoint of building up the land. Sweet and red

clover can be grown on poor soils without fertilization with a greater degree of success than alfalfa.

Newly cleared land or virgin soils may be fertile but on account of blue grass infestation and poor physical condition such ground should first be subdued by cropping a number of years with cultivated crops, such as corn or potatoes in rotation with grain and clover.

While some excellent results have been obtained with alfalfa on sandy soils it should not be recommended too strongly on the poorer sands. Special soil treatment in the way of liming, fertilization and rolling is nearly always required for success.

Use clean ground. To avoid weed trouble have alfalfa follow some well-cultivated crop like corn or potatoes. The use of a nurse crop which is cut early will often control the weeds the first season, but if they should get bad, clipping with a mower or grain binder about the middle of August will largely dispose of that difficulty.

Lack of sufficient lime in the surface six inches of soil is the greatest cause for failures, poor stands, and poor growths of alfalfa. Even soils of distinct limestone origin and formation are often too sour to grow alfalfa successfully. Rain, with the aid of cultivation and years of cropping, may have leached the lime out of the surface soil. Leaching and the removal of lime in crops taken off the land may have reduced the supply so much that a sour condition has developed, making the soil unfavorable to the growth of both alfalfa and clover. This condition is known as soil acidity.

Alfalfa is a lime-loving plant. Four tons of cured alfalfa remove twenty times as much lime from the soil as the straw and grain of a thirty-bushel

wheat crop. A ton of alfalfa hay contains nearly 100 pounds of lime. There is no crop grown on our farms which needs as much lime as does alfalfa. This explains why alfalfa does so well in Southeastern Wisconsin, where the soil is, for the most part, underlain with a gravelly limestone subsoil. Even here the surface is often too acid and liming proves necessary and profitable. On very fertile soils alfalfa will grow well even though the soil is quite acid. The greater the soil fertility, the smaller the amount of lime required.

Not every field needs lime to grow alfalfa successfully. Some soils are abundantly supplied and need no other applications. Other fields require as much as five tons an acre. The lime requirements of any soil for successful alfalfa growing can be determined easily by the Truog test. This test not only tells whether or not the land needs lime for successful alfalfa but shows approximately how much lime should be applied. It is, in a large measure, taken the "table" out of alfalfa growing. There is no need to take chances. Find out your soil needs lime. Have it tested and save money. Get your county agent to do it or send a half-pint sample to your experiment station. They will let you know how much lime, if any, you should use for success with alfalfa. If your soil is on ground limestone or some similar form of lime, better wait to sow alfalfa. Lack of lime has been the cause of thousands of failures in the west, sickly yellow starving alfalfa fields.

The form of lime most generally used for agricultural purposes is ground limestone. It is cheap and quite readily obtained. In case of large hauls from freight stations farmers may co-operate in purchasing a portable lime grinder and doing their own grinding, provided a quarry of good limestone, containing not more than 10 per cent impurities, is available. Limestone samples are tested frequently at the Wisconsin Experiment Station.

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SUNFLOWER SILAGE

By DUNCAN L. McMILLAN

Superintendent Upper Peninsula Experiment Station, Chatham, Mich.

GREATER interest probably is being shown in the northern states in the development of sunflowers as a silage feed, than in any other one crop. Only during the past three or four years has any work of importance been done in trying out the possibilities of sunflowers.

For many years, silage of some kind has been considered necessary in the ration for economical winter feeding of dairy and beef cattle, and usually of sheep.

In territories too far north for corn to develop well, different plants have been tried out, with more or less success, for silage, until recently peas and oats have been considered the leading crop for silage in these areas. Now there is a possibility that sunflowers may take the lead, and in a large way solve the silage crop problem for us.

Several of the experiment stations, including Montana, Nevada, Colorado, Minnesota and the Upper Peninsula of Michigan, as well as experiment stations in Canada, are doing considerable work with this crop, and the reports are favorable.

Montana people are enthusiastic, after four years of work, and are urging their farmers to plant considerable acreage of sunflowers for silage. Minnesota people have done much with the crop, both in cultural work and in feeding tests.

In summing up the results from all of these stations, we find their yields running from ten to thirty-six tons, and in the feeding tests with dairy stock, the milk yields are holding up very nearly on a par with stock fed corn silage, or pea and oat silage. No case has there been any detrimental effects from continuous feeding of the silage.

We have had but one year's experience here at this station, but the results are very gratifying.

One acre was planted last Spring, to the Mammoth Russian variety, on sandy loam soil, that was quite heavily infested with quack grass. This was sown with an ordinary grain

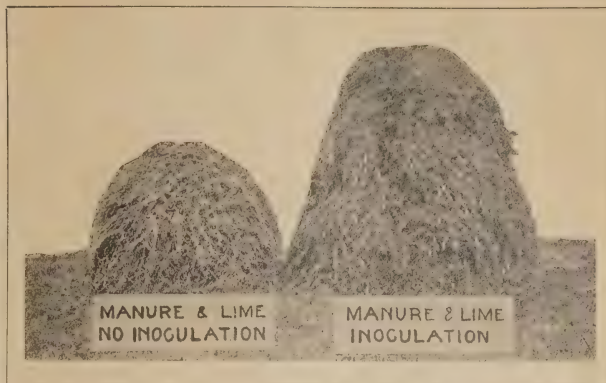
drill, in rows twenty-eight inches apart, using about ten pounds of seed to the acre.

This proved to be a heavier seeding than was necessary, so when the plants were about six inches high, they were thinned with a hoe, to about eight or ten inches apart. They were cultivated similar to corn.

They made a very rapid growth, and about the middle of September were far enough advanced to be put into the silo. It was found that where the plants were quite thick, the stalks were spindling, and did not produce the tonnage; also where they were quite thin, the stalks were very coarse.

Much depends upon the richness of the soil as to the amount of seed required to the acre, as light soil would not be expected to produce as many plants as the rich heavy soil.

The crop can be cut with a corn knife or a corn binder. The best sil-



About the middle of November the silo was opened and feeding commenced. The first few days, the cows did not seem to relish the silage, but did not object to it any more than they would to any other silage that they were unaccustomed to.

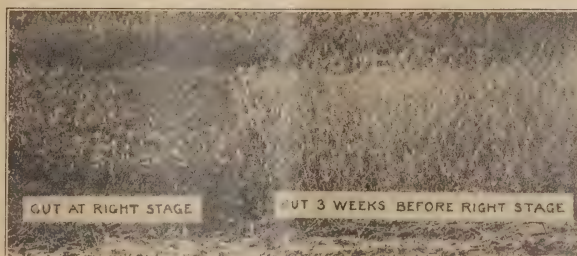
carry on the work more extensively next year.

Practically no difference could be noted in the milk flow from the herd, when fed on either pea and oat silage or sunflower silage.

Several trials will be made in different parts of the state during the coming season, in order to test out the crop in as many different conditions as is possible.

From results so far obtained by experiment stations, we find that sunflowers can be successfully grown farther north than corn. They produce a greater tonnage than either corn or peas and oats, and have nearly an equal feeding value. They produce a cultivated crop to use in crop rotation, which is very necessary in eradicating weeds and quack grass. They stand light frost, that would seriously injure corn, without any injurious effects.

It seems, therefore, that the sunflower is a valuable addition to the crops of the northern states and if future experiments continue to prove as successful as those of the past, it is probable that a really satisfactory substitute for corn—at least insofar as silage is concerned—has been found. It certainly is already evident that sunflowers can be successfully grown on northern farms.



lage is obtained when the plants are in the milk stage when cut, as the stalks become woody very rapidly when ripening.

No more difficulty was experienced in running them through the silo filler, than when peas and oats or corn are used.

The cows were gradually worked up to thirty pounds a day, and fed in this way until the silage was all gone. Then they were fed pea and oat silage.

Having but the one silo, we were unable to put on comparative experiments but expect to be able to do so another year, as plans are made to



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"Go a Little Farther North and You Have the Same Conditions That Prevailed Farther South a Hundred Years Ago. The Future for This Cut-over Country Is no Different—It's a Natural Dairy Country."

ED'S FARM IN THE CUT-OVER COUNTRY

By R. A. RIDGLEY

"SOME farm knowledge, consistent work and \$300 were my assets; today I have a farm."

Ed Burdick lives in the cut-over country. He has a family of three, tucked away in a neat frame house; he has a mighty nice basement barn, seven good cows, three horses, a fiver, a comfortable income—and incidentally a camera and a fishing rod, both of which he finds time to use.

Seven years ago his "farm" was buried under a tangle of brush; a year later it grew ferns, mostly, and new brush-sprouts that pushed lustily through the ashes of his first fire. Five years ago he had a good deal of hay, some potatoes and a little corn. Today he is well along toward a dairy farm and feels that he is over the top.

When he began, his visible collateral was \$300 in cash. Wives are not ordinarily listed as assets. In Ed's case the wife looms up at several hundred thousand times the worth of the \$300. Mrs. Burdick was, and is, an enthusiast. Her enthusiasm, like Ed's, is of the subdued kind, evidenced in plain, logical thinking and in consistent work. Neither Mr. or Mrs. Ed claim genius; they just see what must be done and they do it.

Ed Burdick and his family are composites. They are the portrait, resulting from seven North country families, superimposed one upon another. All of them lived in the cut-over districts. All of them have been successful. All of them started with small capital—averaging \$300. Their experiences have been alike and their methods are similar. They are therefore "types" typical of one form of success.

Seven years ago Ed left the old farm, down near the Missouri line. He was a very young man—is yet, for that matter. He had heard of the cut-over country and had read everything he could obtain concerning it. He was a farmer by instinct and by training. He knew farming from the ground up. He did not know cut-over farming.

He had \$300 in cash when he landed at Randall Junction. The Junction, like many Northern towns, was the center of a lumbering operation. Ed had carefully and deliberately selected the Junction. This he did because the long-range study of soils, which he was able to make, indicated that he would find here about what he wanted. He had then visited the Junction and walked over miles of logging roads.

Next he had ascertained ownership and made a land contract for 160 acres. Under this contract he was not required to make any cash payment; he WAS expected to "brush" five acres, and to actually plow at least one acre. This arrangement prevailed for five years. Then actual money was required. Ed figured he could do it.

The preliminary investigation, including railway fare, ate up most of a \$100 bill. In other words Ed actually started with \$400 and he actually arrived at his brush-covered farm with \$300.

Of this sum he left \$250 with the local banker. Before he made the deposit, he talked to the bank's president and its other officers. He frankly explained his plans, his prospects as he saw them, and the methods he expected to use. He listened attentively to the advice given him.

He next paid cash for a supply of grub and carried \$40 worth of it to his farm.

With the help of woodsmen who transported him, he erected a shelter, made from saplings found on the place. It was a crude thing. In it he lived alone through the first summer.

He began by burning the brush. He did this in early spring. The snow was hardly off the surface nor the frost out of the ground. It is not always possible to run fires through brush land at this season. Ed accomplished it after a period of clear weather and high drying winds. He followed the fire with a brush hook, working on a five-acre tract. Later he managed to borrow, at the Junction, an antiquated spring tooth harrow.

He scratched up the brush land as best he could and attempted a light seeding, with a pasture mixture including some clover. He found that the clover growth which followed was out of all proportion to the amount of seed used. In other words, there was a natural growth of this crop, which is indigenous to the North country. The five-acre tract was by no means cleared. The brush was simply hacked and broken down and pulled aside.

In the meantime, Ed worked intensively on a single acre near his shack. He used dynamite on the stumps. There were fewer of them than he had expected to find. They

also were tougher than he had anticipated.

Most of his work was done by man power—his own; later he hired a team from the lumber company at the Junction and pulled up what he could not handle with crowbars.

"It was mighty hard work," he said, "many of the stumps blew out in chunks too big for a man to handle. Others remained in the hole—were simply broken up without actually rising out of the ground. But with the block and tackle and a team I managed to get the acre into fairly tillable condition after a month of effort. Sometimes I worked fourteen hours a day and had just pep enough left to reach my bunk and drop into it."

Next he plowed the acre with borrowed tools and hired horses. He planted it to late potatoes. He did not expect to get much of a crop. Wild, new land is an uncertain thing. It is usually rich enough but there is something about it that does not equal cultivated acres.

Nevertheless, Ed harvested a goodly supply of potatoes, though they were not of first quality. But they were marketable at the lumber camp, and yielded him \$78.

The net result of that first year's effort was a five-acre tract fairly well brushed, and one acre under plow in which a cultivated crop had been grown—and this acre was, therefore, in good condition to take a new crop next spring.

As the summer progressed the five acres of brushed land took on an ever better symptom of cultivation. Ed kept after it, grubbing out the small stumps and dragging away the trunks and branches. In fall the larger part of this tract was ready for plowing between the stumps.

Before frost came Ed had laid a stone foundation for his house. The stone was picked up and mortared with the help of two men who spent three days with him. They also laid the sills, purchased from the lumber company at the Junction. Then Ed moved to the Junction. He got a job with the lumber company. That kept him busy all winter at \$4 a day, and doubled his capital. He went back to the farm in Spring accompanied by two men from the lumber company. With them he finished the frame for his house. They also helped him dynamite a few of the larger

stumps and drag them into piles for burning.

The rest of the work on his five acre tract presented only minor difficulties. With borrowed implement and hired teams he had half of it ready for the plow on the first of June. He had corn and potatoes planted before he began finishing the other half. In mid-summer he had seeded about three acres to a pasture mixture and that fall he harvested not only potatoes and some corn but also six tons of good hay—large clover.

He also had roughly brushed over another five acre section. This tract was of course by no means cleared but a very fair start had been made. When Fall came his gross sale amounted to \$192—including potatoes, corn, corn stalks for fodder and hay.

That Fall Ed made a hurried trip to Missouri and married the girl who was waiting for him. He brought her back to the Junction and they lived in two rooms over the general store while Ed again worked in the woods.

His capital at this time was something like \$600, deposited at the bank. He had seen to it that his banker knew just what progress he had made. In Spring he arranged with the bank for the purchase of a team, a cow, spring tooth harrow, a plow and a few minor tools. Horse and cow were given the roughest kind of shelter and the shed made largely of sapling. But they began paying for themselves almost at the outset.

Ed found it much easier to get his few neighbors to help him when he could promise them a MAN and TEAM in return.

The second five acre tract was rapidly cleared up and was plowed with the help of two lumber company teams. Potatoes again were the first crop to go into this new ground. The six acres previously cultivated were used for corn and for oat and pea hay.

The house was also completed this Spring. When he got through Ed found himself without capital, an \$900 in debt. He owed part of this to the bank and part of it to the lumber company. His assets, however, were a good house, eleven acres under plow and a good start on another five acre tract of brush land. Furthermore, his \$600 deposit remained in the bank for his use—even though it no longer was strictly his.

When Fall came his gross sale amounted to \$270, largely the proceeds from potatoes. He now has

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the stock and needed his oat and pea
y, his corn stalks and his corn for
own use. He also harvested from
new five acre tract enough clover
and mixed hay to help carry him
through the winter.

Perhaps it is needless to go further
with Ed's story.

The way to succeed in this coun-
try, as I see it, is to follow the obvi-
ous methods. Work hard and consist-
ently and invest money only when it
is needed. Then you must use the
facilities around you. If you can tie
up with a good bank, do so. If there
is a lumber mill near by, get acquaint-
ed with it and its owners. Stay on
the farm as long as you can profitably
work it; then leave it and go else-
where to get your profits. Never
waste time on the farm when you can
enter it in a lumber camp—but be
mighty certain not to get into the
trap when you ought to be on the
farm.

This is the way Ed summarizes the
steps toward success as he sees them.
Ed is a type. That simply means
that his methods are typical of one
kind of endeavor which has led to

achievement.
There are
many other
types. For
instance:

Old Man
Reynolds
is foreman
of a printing
plant in a
large city.
He reared a
family, de-
cided to one
other, and
interested
in farming.
Practical ex-
perience
however, was
latterly lack-
ing. So Rey-
nolds did the
invaluable
thing. He re-
turned fore-

man in the printing plant and bought a
tract of cut-over land out of his earn-
ings. He paid \$18 an acre but very
little of it in cash. The family helped
him economize to the point of real
sacrifice.

Then his oldest boy went to the
farm, lived there, and began develop-
ing it. The younger boy, two daugh-
ters and Reynolds himself kept right
on working in the city and sent the
necessary money to buy supplies and
equipment. The second son followed
in the next year. When a house was
built the rest of the family moved;
but Reynolds still remained in the
print shop. His income was largest
and therefore the best anchor to wind-
ward.

Meanwhile, two young men, backed
by such money as they needed, natu-
rally made rapid progress with the
farm. In less than two years Rey-
nolds himself quit his job and found
that a large impression had been
made on the wild country that was to
be his home.

Reynolds is a second type. There
are many like him. His process in-
sures more rapid carving out of a farm

from the wilderness, because money
is consistently being poured into the
new acres. Nevertheless the funda-
mentals are the same in both cases:
consistent work of the right kind, and
utilization of the facilities around the
new farm.

In both these cases live stock did
not reach the new farms until after
the second year. Live stock is a valu-
able asset when there is land enough
to support it. It is a distinct liability
when there isn't.

But this matter of live stock of
course can be viewed from another
angle. The cut-over acreage offers
some immediate pasturage. The
man, therefore, who already possesses
such live stock, sometimes takes it
with him to good advantage. If he
does, he must market it in the Fall of
the first year. He can not possibly
feed it through the first winter from
the proceeds of his own acres. Of
course he can buy feed if he can af-
ford it. However, in that case he's a
capitalist—not the type of unfinanced
American within the purview of this
proletarian discussion.

Perhaps these comments, as voiced
by Ed, best summarize the opportuni-
ties on cut-over acreage:

"As I look at it, this land is no dif-
ferent from any other land—in Mis-
souri, Iowa, Illinois or Southern Wis-
consin. Go back far enough and most
of our states were covered with for-
ests. Then there was a time when
the forests were cut away and brush
took their place. Men came and
cleared it off and made farms. Today
we see fine fields and say that 'it's a
wonderful country.' Go a little further
north and you have exactly the same
conditions that prevailed further
south a hundred years ago. The soil
is no different, and the future is no
different for this cut-over country—
it's a natural dairy country. Maybe
parts of it are grazing country. Any-
how, all you need do is roll back the
blanket of brush and stumps, and you
expose land that will grow crops. If
you can figure out how to sensibly and
cheaply roll back the blanket, you suc-
ceed; if you can't, you don't—that's
all."

I don't see that there is anything
much to it except horse sense and

darn hard
work. You've
got to figure
on hard work
for four or
five years.
That's what
you pay
when you
buy \$200 land
for \$20. After
five years it
comes easier.
You've got
your start.
You keep
working in
units of five
or ten acres
—or as much
as you can
handle — un-
til you're

(Continued
on page 48)



Livestock Is a Valuable Asset When There Is Land Enough to Support It. It Is a Distinct Liability When There Isn't. It's Fine If a Man Can Feed It Through the Winter from the Proceeds of His Own Acres.

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JUDGE FAIRHOPE INTERVENES

Illustrated by WALTER COHN

IT was mid-morning. A young woman, in a rather worn tailored suit, alighted from the train at Reedsburg. She found herself alone upon the station platform.

Then a sway-backed horse, drawing an antiquated buggy, slowly rounded the building. The young woman stepped doubtfully toward it.

Without changing his position, the man in the buggy achieved a sort of chucking "whoa!"

"Could you tell me where I might find a hotel, or—," the girl hesitated. "—or perhaps a room, where I might live?"

The man tilted far back in the buggy-seat, watched her out of half-closed eyes that seemed to smile.

"Alone?" he asked. She nodded.

"M'm—." A period of silence followed, during which the keen eyes seemed to look deep into the girl's mind. Slowly a flush overspread her features; then her lips tightened and the tilt of her head became stubborn. Before she could speak, however, the man said:

"Now, let's see. There's old Missus Hubbel, an' Miss Parsons. H'm—no," he looked at the girl again, "no, neither'll do. Better take this street, turn to y'r left at the fourth corner, an' stop at the second house. Jes' say Judge Fairhope sent you."

He clucked to the horse and the old vehicle moved away. The girl watched it disappear, the hard lines slowly leaving her face. Then she impatiently dabbed her brimming eyes, and started resolutely down the street. She turned at the fourth corner and stopped at the second house.

A man answered her knock. He was a youngish man, whose dark hair was lightly streaked with gray.

"Can I get a room here—to live? A man said I might."

The young man's face assumed a threatening frown. The girl went on, wearily:

"I'm very tired. I haven't slept much recently."

A whimsical smile, rather pleasing the girl thought, flashed momentarily and then became a hard, cynical sneer.

"And who," he said gruffly, "was the man who said you might live here?"

"Judge Fairhope."

"Oh—that's different. Come in!"

The girl found herself in a plainly furnished house; it was obviously a man's house, where the disarray of masculine order prevailed. The man showed her to an upper bed room that overlooked the street, and against whose windows the just-budding trees tapped softly. The early spring sun filtered cheerily through the tracery of branches and cast dancing shadows on the floor.

The girl seemed to breathe a little quivering sigh of relief. Then she turned to the man and said briefly:

"Thank you. I'm Lucy Sammond."

"I'm Chester Worth." He closed the door, leaving her, and stalked grimly from the house.

He found Judge Fairhope in his swivel chair, feet cocked on the windowsill, an open letter spread on his knees.

"Knew you'd come, Chet. Sit down."



"Judge, if any other man had sent that girl to my house I'd have—have—"

"Yea—I know; happen's I had a purpose. How long you lived in Reedsburg, now, Chet?"

"Eleven years." "Don't like Reedsburg any too well, do you Chet?"

Chet sank his hands into his pockets and walked to the opposite window.

"You know I don't dislike Reedsburg, Judge. But you also know how I hate the petty way Reedsburg looks at things. I hate its pinch-penny ways o' doing business; I hate its little, narrow, warped minds; I hate its hypocrisy—I hate folks who occupy front pews on Sunday and have no charity for a neighbor on Monday. I hate—"

"You hate prutty well, don't you, Chet," said the judge, softly.

"Yea—I know; hate and am hated, Judge. But I love, too. I came to Reedsburg because I loved the country—the great, broad, big country all about us here. I came because I thought small-town folks were like that—big and generous and kindly—like the country. But I found—"

"Yes, I know, Chet. Now about the girl. What'd you say's her name?"

"Lucy Sammond."

"Lucy Sammond," the judge repeated the name absently. "Well, it's a good name—most's good ez any other. Now then, Chet, I want that you keep Lucy. I don't b'lieve it best to send her to Missus Hubbel's, ner yet to Miss Parson's. You jest said something 'bout front pews on Sunday an' no charity on Monday. If I mebbe, Chet, that there's somethin' in what you say. It mebbe that that's my reason for sendin' Lucy to you. If mebbe

that the time's comin' when you kin set an example in charity fer the benefit of Reedsburg."

The judge watched the young man's face out of half-closed eyes. It was characteristic of Chet that he should neither question further, nor offer comment. His eyes may have narrowed a bit, and his face may have hardened. Perhaps the judge saw grim lines settle momentarily about the mouth, as Chet considered his problem. Then he turned:

"All right, judge. See you later," and he was gone.

Reedsburg wasn't long in learning of Lucy's coming. Nor was Reedsburg's indignation slow in developing. It spread from Chet's neighbors to the women's clubs, and thence to the church.

The idea—that girl living in Chet Worth's house! Not a woman about, and those two—well, it was scandalous! Something ought to be done about it!

Meanwhile Lucy remained much in her room. She walked dally, under the best-opening leaves, and squarely met the scornful glances that were her only share. She made no acquaintances; couldn't have, had she wanted to, for there was no woman in Reedsburg who would accept Lucy, nor give her friendship.

As for Chet—the first man who addressed him on the subject of Lucy had winked. He was promptly knocked down. Since then none had ventured questions. But her coming hadn't helped Chet any in Reedsburg. He never had been popular.

Chet returned from his work well toward sun-down, and spent most of his evenings at home. Reedsburg saw little of him. He, in turn, saw little of Lucy. Sometimes he met her returning from a walk as he came in. On these occasions she nodded reservedly. They rarely spoke beyond this greeting.

Then both Chet and Reedsburg saw her less and less frequently. Chet, when he came home at night, could

hear her moving softly about in her room. Or he sensed her presence, even though he heard no sounds. Finally, he neither met nor heard her several days.

Meanwhile Reedsburg's indignation crystallized. The men, for the most, refused to be actively concerned. They listened to gossip; some of them engaged in it; most of them just smiled knowingly. Deacon Cyrus Wattles, however, developed a stubborn determination to wipe the slate from Reedsburg's good name. The deacon found himself supported by the Ladies' Integrity League. That organization for civic rectitude appointed a committee with Mrs. Wattles at its head. And so his band and wife, backed by three determined sisters, expressed public opinion against the district attorney's interference. But the committee's action wasn't to be rushed into precipitate action. He asked a lot of pointed questions and then wanted time.

No one in Reedsburg saw a matronly woman leave the Chicago-Reedsburg northbound train at midnight. Nor did anyone see Judge Fairhope's sway-backed horse in front of Chet's house in the early morning hours.

But three days later there was no one in Reedsburg who DIDN'T know that a baby had been born to Lucy. So, when the indignant committee called on Judge Fairhope himself, it is probable that a jurist was not without some such expectation.

Mrs. Cyrus Wattles took the first almost before the judge's door was closed:

"It's time, judge," she began, "that the law and order of Reedsburg were upheld. It's time that officers of a law did their duty. This girl—Lucy woman—been livin' with Chet Worth."

"At Chet's house, you mean, d'you?" asked the judge.

Mrs. Wattles sniffed. "Perhaps," she said, "anywhere there's a baby. It's scandalous, with respectable folks tryin' to bring up children here in Christian decency. That girl should be driven out o' town."

"Think that'd be just th' right o' Christian decency?" asked the judge.

Mrs. Wattles bristled. "That ain't neither here nor there," she snapped. "We're here to ask for justice be done."

There was silence while the judge gazed out upon Reedsburg's street.

"Ladies," he said at last, "this young woman has quietly come to Reedsburg and hez hired herself a room in Chet Worth's house. It'd appear that we, nor anybody else in Reedsburg, knows much more'n that, agin' her."

The committee sniffed.

"Nor," continued the judge, "does it appear that there's been any much to criticize up to Chet's house—been pretty straight-going, then, hasn't they?"

"But," he continued, without waiting for the formulated protestations, "it may be that there's been a breach o' the law. That remains to be seen. But before we git too far along, let the judge directed himself to the

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March, 1920

CLOVERLAND MAGAZINE

THE NORTH WIND'S MALICE

(Concluded)

THE FRUITS of that sporting enterprise were bitter; the trader won his bet but he never cashed in. Somewhere out on the high arrens a storm swooped down upon the travelers. To one who has never seen an Arctic hurricane it seems incredible that strong men have lived within call of cozy cabins or have frozen with the lashings of their leeds but half untied. Yet it is true. The sudden awful cold, the shouting wind, the boiling, blinding, suffocating rush of snow, the sweaty clothes that harden into jointless armor! The stiff mittens and the clumsy hands aside—these tell a tale to those who now.

The two mail-carriers managed to get into their sleeping-bags, but the tale, instead of drifting them over with a protective mantle of snow, coured the mountain-side bare to the brittle reindeer moss and they began to freeze where they lay. Some twenty hours they stood it, then they rose and plunged ahead of the hurricane like bewildered cattle. The strongest man gave up first and lay down, babbling of things to eat. His companion buried him, still alive, and broken down he surrounded willow-tops for a landmark, then he staggered on. By some miracle of good luck, or as a result of some unsuspected power of resistance, he finally came raving into the Crooked River Road-house. When the wind subsided they hurried him to Nome, but he was frightfully maimed and as a result of his amputation he lay gabbling until long after the spring break-up.

Folsom did not write again. In fact, when no word came from Lois, he bitterly regretted the letter he had written. He heard indirectly from her; few-comers from Nome told him that she was well, but that was all. It was enough. He didn't wish to learn more.

Spring found him with barely enough money to pay his way back.

He was blue, bitter, disheartened, but despite the certainty that his wife had forsaken him he still cherished a flickering hope of a reconciliation. Strangely enough he considered no scheme of vengeance upon the other man, for he was sane and healthy, and he loved Lois too well to spoil her attempt at happiness.

It so happened that the Arctic ice opened up later this spring than for many seasons; therefore the short summer was well under way before the first steam-schooner

anchored off the Kobuk. Folsom turned his back upon the wreck of his high hopes, his mind solely engaged with the problem of how to meet Lois and ascertain the truth without undue embarrassment to her and humiliation to himself. The prospect of seeing her, of hearing her voice, affected him painfully. He could neither eat nor sleep on the way to Nome but paced the deck in restless indecision. He had come to consider himself wholly to blame for their misunderstanding, and he wished only for a chance to win back her love, with no

By REX BEACH

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questions asked, and no favors granted.

When there was less than fifty miles to go the steamer broke her shaft. There was no particular reason why the shaft should break, but break it did, and for eighteen hours—eighteen eternities to Folsom—the ship lay crippled while its engine-room crew labored manfully.

Folsom had been so long in the solitudes that Nome looked like a big city when he finally saw it. There were several ships in the roadstead, and one of them was just leaving as the Kobuk boat came to anchor. She made a splendid sight as she gathered way.

The returning miner went ashore in the first dory and as he stepped out upon the sand a friend greeted him:

"Hello, there, old settler! Where you been all winter?"

"I've been to the Kobuk," Folsom told him.

"Kobuk? I hear she's a bum."

"Bum" is right. Maybe she'll do to dredge some day."

"Too bad you missed the 'Oregon'; there she goes now." The man pointed seaward.

"Too bad?"

"Sure! Don't you know? Why, Miz Folsom went out on her!"

Folsom halted; after a momentary

pause he repeated, vaguely, "Went out?"

"Exactly. Didn't you know she was going?"

"Oh yes—of course! The 'Oregon!'" Folsom stared at the fading plume of black smoke; there was a curious brightness in his eyes, his face was white beneath its tan. "She sailed on the 'Oregon' and I missed her, by an hour! That broken shaft—" He began to laugh, and turning his back upon the sea he plodded heavily through the sand toward the main street.

Folsom found no word from his wife, his house was empty; but he learned that "the man" had also gone to the States, and he drew his own conclusions. Since Lois had ordered her life as she saw fit there was nothing to do but wait and endure—doubtless the divorce would come in time. Nevertheless, he could not think of that broken shaft without raving.

Being penniless he looked for work, and his first job came from a small Jewish merchant, named Guth, who offered him a hundred dollars to do the assessment work on a tundra claim. For twenty days Folsom picked holes through frozen muck, wondering why a thrifty person like Guth would pay good money to hold such unpromising property as this.

The claim was in sight of Nome, and as Folsom finished his last day's labor he heard bells ringing and whistles blowing and discovered that the town was ablaze. He hurried in to find that an entire block in the business center of the city had been destroyed and with it Guth's little store, including all its contents. He found the Jew in tears.

"What a misfortune!" wailed the merchant. "Ruined, absolutely—and by a match! It started in my store—"

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SYNOPSIS

Folsom, a "sour-dough" in Alaska, embittered by reverses and an overwrought imagination that "the other man" had crossed the threshold of his door, decided to bury the past with a plunge into the Dexter Creek district, the most remote and inaccessible region above the Arctic Circle that held the lure of gold to the most daring prospector. Repentant over his abrupt departure and the manner in which he had left his wife in Nome, Folsom wrote letters at different times to her, expressing his feelings, but each time fate intervened and none was delivered. During the long, weary months he received no word from Lois. He did not know that his letters were undelivered, and his conclusion that she had forsaken him became a conviction.

Two volunteer mail carriers, entrusted with the last batch of mail from Candle Creek for Nome for the winter, started on the long journey on a wager they could break the record for the trip. They left in a threatening storm, heedless of advice, and fate so shaped the affairs of Folsom that his final conciliatory letter to his wife was in this batch of mail the gamblers with death had undertaken to deliver in Nome.



In the Villages from Katmai to Kuskokwim the Indians Tell of the White Man, Who Raced Through 'Til His Guides Dropped and His Dogs Died in Their Collars.

Cloverland

MAGAZINE

The Illustrated Monthly Magazine of Greater Cloverland

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THE ANDREWS PUBLICATIONS,
313, 315, 317, 319 Quimby Avenue,
Menominee, Michigan

Entered as second-class matter January 27, 1916, at the post office at Menominee, Michigan, under the Act of March 3, 1879.

Subscription price, postage paid, \$1.00 a year in advance.

Advertising rates on application.

Made all remittances to Cloverland Magazine, or to the Publisher, R. M. Andrews.

MARCH, 1920

A Warning

THE United States post office has received twenty thousand answers to questionnaires forwarded to farmers. The answers have caused a gasp at Washington.

The farmers are practically unanimous in warning the government that it must adjust industry. The farmers say they have attempted to feed the nation without adequate labor; with increasing high prices for everything they buy; and without compensating returns to themselves.

While they have been toiling the workers in the cities have been striking; demanding fewer hours and ever higher wages. Middlemen have been buying farm products at comparatively low prices and selling at unprecedented profits. The gap between producer and consumer has been widened rather than bridged.

The farmers warn Washington that unless means are found for turning back an adequate number of men to cultivate the farms, and unless the cities increase their labor hours or reduce their rates of pay, thousands of American farmers will be forced to restrict acreage to their own bare needs, or will actually stop farming and move to town.

All this comes from a new voice in the social conglomerate. Heretofore the farmer has said little; has continued to cultivate his acreage, produce food, take the prices that were given him and meet obstacles quietly and uncomplainingly. He now begins to recognize that if labor gets undreamed of wages for five or six hours of work then farm help will gravitate to the cities. The men who harvest the wheat crops will prefer the fat weekly pay envelope of the factory; the men who produce milk and butter and those who plow and plant will leave for the allurements of the city. He sees that with this labor dearth he cannot continue to produce the nation's food.

The farmers are not unsympathetic toward either capital or labor. They favor a square deal for both, but they recognize the inevitable—either bring wages and prices down or pay much higher prices for farm products so that the farmer may in turn pay high wages for his labor. Only so can he hold it. And only so can the nation be fed.

It remains for the government to decide which alternative it prefers. There is a lot of complaint about high prices; but whether the nation as a whole suffers under them is questionable. The man who buys bread at five cents, and earns only that five to buy it with, is no better off than the man who buys bread at ten cents, but finds it just as easy to earn that ten.

However, if revision downward is wise, it certainly is possible. Prices CAN be forced down—slowly, steadily and without bringing on industrial danger. But they can only be pressed to lower levels by the voluntary acts of manufacturers and merchants. The margin of profit must be cut—perhaps

for a time to unduly low levels. That first step must be voluntarily taken; labor must follow—first of all by stopping its endless strikes; next by really producing instead of loafing even while it is upon the job. If a downward pressure is exercised, lower levels will soon be re-established. If it isn't, then lack of farm production will finally force it, and that's bad. It will mean disturbance, failures and a lot of unemployment.

A Misguided Senator

WHEN postal officials recently read to a Senatorial investigating committee some twenty thousand complaints made by farmers against prevailing conditions, one badly warped Senator remarked:

"Sounds as though this came from a lot of Bolsheviks."

There is a type of mentality rampant in the United States today which blatantly cries, "Bolshevik," at those who oppose its own views.

The Cloverland Magazine has emphatically declared its position in the matter of radical agitators and political pudden'-heads who would reorganize society on a celestial basis where under big returns and no work is the share of mankind.

But, the straight thinking American is not going to tolerate the growth of another type of opinionated autocrat simply because he will have nothing to do with the first set.

The farmers of the United States are entirely justified in plainly voicing their objections to existing industrial conditions. If they feel that profiteering prevails, at their expense and at the expenses of the consumer, they would be poor Americans indeed, if they didn't say so. It is time that certain Senatorial highbinders hear the real American voice grumbling from the throats of the real American people.

There isn't the slightest chance for Bolshevism or any other of the "isms" in the United States so long as these American voices continue to freely express their convictions.

Incidentally, it seems almost time to ask, "Who is the real American?"

Is he the Senator in Washington who would muzzle the American press; who would curtail free speech; and who yelps "Bolshevik" whenever an opponent appears?

Or, is he the man back home who tills his acres and loves them; who builds his home and raises his family, and loves them; who fills his granaries and his lofts, feeds his cattle and produces the foodstuffs upon which a nation subsists?

Is he the man who agrees with every foamy utterance that comes out of Washington, or is he the man who would make his home and his business—and, therefore, his nation—a just and honorable and sound and sane nation?

During the war, there may have been good cause for checking the expressions of certain opinions. War brings situations that require diplomatic and carefully considered speech. War is a period of great danger and during such periods, we are justified in using emergency measures even though such measures may, in times of peace, be fundamentally wrong. But once the vital danger of war has passed, we must be quick to go back to the wholesome practices that are the heritage of a free people. Among them is the freest expression of opinions and the freest of press.

If the farmers of the United States have voiced protest, of any kind, it behooves Washington to analyze that protest. The farmers are slow to speak. Slow speaking men usually are thinking men. They turn matters about in their minds; they look upon them from every angle; they weigh and balance them and measure them this way and that. Having done so, they speak at last. Such speech had best be listened to. To blatantly call it Bolshevism indicates nothing—except a shrunken mentality and a vision that doesn't reach far beyond Senatorial noses.

"All Wool"

JUST as deceit in preparing food for market had to go under provisions of the "Pure Food and Drug Act," so must deceit in the manufacture of "all wool" fabrics be eliminated by the enactment of the "Truth in Fabric Law" now before Congress. The "rag pile millionaires" and the shoddy manufacturing interests have no defense. There is no logical or honest reason why all fabrics should not be labeled on the selvage of the goods, and manufactured garments bear a similar label, telling exactly the content of shoddy, of jute, of feathers, of wood fibre, of hemp, of cotton, of virgin wool, the cloth contains. It is right and fair that the buying public should know exactly what is purchased.

Shoddy is re-worked wool—that is, woolen yarns manufactured from woolen rags collected like garbage, the clippings from garment factories and tailor shops, but principally from old woolen rags. The manufacturer "truthfully" labels the fabric "all wool," but it has no tensile strength, no wearing quality. The buying public is thus deceived and defrauded, for it is misled into the belief that the garment is all "virgin wool," wool direct from the sheep's back, and has the wearing quality of the true woolen fabrics on the markets a few years ago.

The harm done by this deception does not end with the innocent purchaser. The shoddy interests are killing off sheep husbandry, because virgin wool is placed in direct competition with rag pile wool. By using shoddy and selling it for pure wool in the fabric, the price of virgin wool is forced downward to meet the price of woolen rags.

While this practice of deceiving the public and killing off the sheep industry is going on, the shoddy interests are clamoring for sales of foreign wool in United States markets free of duty. The woolen warehouses are filled to capacity now, yet foreign wool auctions are being successfully urged upon this administration. Thus the whole scheme of fraud and deception makes the rag pile millionaire richer and richer while the sheep grower and consuming public grow poorer and poorer.

Retail merchants, jobbers and wholesalers, unless directly interested in the manufacture of shoddy, are innocent victims of this unfair dealing. It is doubtful if any clerk, or store manager, or store proprietor, can detect shoddy from virgin wool in the manufactured garment. There is no way of detecting the fraud until the garment is actually worn. Shoddy makes itself known very quickly when worn, for no matter how artfully the garment may be tailored, it will soon become mis-shapen, baggy and out of form, the finish of the cloth will disappear, as if by magic, and the texture will pull apart.

There was opposition to the "Pure Food and Drug Act" and loud warnings that the law could not be enforced. The law has been and is being successfully enforced. The "Truth in Fabric Law" will work in spite of the lone defense, "it can't be done."

All congressmen and senators are being urged by the deceived public, by the wool growers, by honest merchants, by everybody wanting a square deal for the dollar that has shrunk to half its former size, to vote for the "Truth in Fabric Law." This support of the measure ought to obtain its prompt passage by unanimous vote.

The Periodical Pinch

SOMEbody has said that 98 per cent of all of the country boys who went into the army, stayed in the cities after the war.

Somebody else has said that this "back to the land" notion is all rot.

The two statements don't jibe. Even if we discount the first figures by about 50 per cent—that still means that something like 49 per cent of the boys didn't come back to the farm.

And if they didn't the farms are missing them.

In the meantime there isn't a city in the United States that has houses enough for its population. Everywhere people are packed away, two or three in a room, and everywhere—in the cities—the cry goes up for more homes.

All this can mean only one thing: Farm effort is going down; city effort is going up. And that, in turn, means that more persons are using and eating the products of the farm every day, while fewer persons are producing them.

Viewed from one angle that's a good thing for the farmer. It means a big demand for his produce. And, unless the market can be artificially controlled, it ought to mean mighty high prices for farm-stuffs.

Usually the market is artificially controlled. Usually there are middlemen who manage to buy at low prices, and sell at higher ones—a good deal higher. So, though the increasing population in the cities must, and is ready to, pay well, the farmer doesn't get the increased profits.

That's been unfortunate—for the city people. The farmer hasn't complained much. But today we witness the result. The boys who are normally farm boys have said to themselves:

"Why work like a nailer on the farm, when I can get as big a return, for less work, in the city?"

And they have gone to the city.

The situation always brings a showdown, sooner or later. Theoretically, the city must pay or starve. But, of course, it doesn't come to that. Simply means that as farm production goes down so city folks feel the pinch.

Among those city folks, are the boys who were farm boys a few years ago. When the pinch gets to them it starts a new "back to the land" movement. A lot of young chaps begin to think that maybe the old farm was a pretty good place after all; they begin to think of the Sunday dinners and mother's pumpkin pies. And then some morning, they pack up, and that night they're back with the old folks.

So, though farmers have never yet received prices that are high enough in proportion to city prices for city products—the cities have always paid dearly for withholding them. They have periodically brought about exactly the situation that prevails today: Refused to help make farming really profitable, until the boys left the farm; then periodically ran into a period of starvation in the cities.

It isn't reflected in actual shortage of food—because it never gets that far. But it is reflected in what is known as "Industrial depression."

And the cities have prepared just such a depression for themselves again. It must inevitably come. It will be marked first by jobbers, who will suddenly find that their orders are actually being filled by the manufacturers. They'll promptly trim sell; stop ordering or actually cancel. The manufacturer will feel the cancellations. Then the retailer will begin to wonder; he'll find that it's no longer troublesome to get his orders filled. He'll begin to trim. Maybe he'll have to go to the bank. He'll find that others have been there before him and that the bankers are chary. And then prices will fall, employment will be curtailed, and men will want jobs. Then there'll be those who'll think back of the old farm, and who'll hike back to that farm hurriedly.

While the farmer, therefore, doesn't get what's really coming to him in the matter of money for his produce, he is compensated by being always on the safe side when these periods of industrial depression hit the cities.

The old farm isn't such a bad place after all.

A good banker is the farmer's best friend; an unscrupulous one may be his worst enemy. Since banking depends in large measure upon farming—the fundamental industry and the old source of true wealth—it is the banker's duty, and his best business, to see that his relations with the farmer are mutually satisfactory.

CLOVERLAND MAGAZINE

FARM ANIMALS

Their Care and Some of Their More Common Ailments

By H. H. BRYANT, D.V.M.

Hog Cholera

HOG CHOLERA is an acute febrile disease, very contagious, accompanied by a very high death rate and may be in two forms—chronic or acute, generally the latter, and always caused by the same germ.

While the actual cause is a germ, there are many things that predispose a herd so that infection is readily taken.

Any condition that tends to lower the vitality of the animal, such as improper feeding, dirty pens and feed troughs, dirty drinking water, cold, damp, poorly ventilated sleeping quarters, over-crowding or poor drainage, render the herd very susceptible to the disease, and chances of infection exposed, are well-nigh certain.

In case of a cholera outbreak in your neighborhood, immediately isolate your herd. Keep them away from public roads and running streams. Keep visitors away, and keep away yourself from any infected areas and immediately have your herd vaccinated.

Be careful when purchasing new stock; isolate your purchases for some time before turning into your own herd.

Although all good stockmen will observe these precautions, the only preventive is "vaccination" or "immunizing" by the injection of hog cholera serum, either by the "single" or "double" method. The single method or treatment provides a temporary immunity only and may be used when chances of infection are slight and your herd will be ready for the market within a few weeks. The double method, or the simultaneous method, is the most reliable and provides practically a permanent immunity. This method consists of injecting the anti-serum into the hog and at the same time virus, or cholera producing blood, is also injected. In this way a very mild form of the disease is produced which is overcome by the previously injected anti-serum and products produced by it within the animal's body.

The only drawback to the double or simultaneous treatment, is in the manner of administration. Great care must be exercised and although the treatment is effective and is recommended, improper administration will result in death—so pick your veterinarian with care.

With this treatment some hogs may go off their feed and appear quite sick. But they recover quickly, leaving no ill effects. The immunity is for at least a year and probably longer—possibly for life.

The double treatment for sows well advanced in pregnancy is not recommended.

In case of an outbreak of cholera the first thing noticed will be that some of the hogs are off their feed, appear sluggish, tend to hide in the bedding and are not inclined to move. Later there is weakness, the hogs appear stiff, and may be constipated, though later they show diarrhea. A cough may develop and eyes become inflamed and watery. This discharge later becomes thick and sticky and may even glue the eyelids together. The temperature is very high—even up to 105 or 106 degrees.

If the animal is examined, reddened or even purplish spots are seen in the skin on the inside of the legs, abdomen and around the neck and ears. For your own information, hold a post-mortem on some of the first ones that die, care being taken of cuts and scratches on your own hands. Although hog cholera is not communicable to man, many other things are.

Lay the carcass of the hog on its back and beginning at the throat, make a cut along the chest and belly through the skin and underlying fat, the entire length of the body. Skin the chest so that the ribs are exposed. Cut the ribs (using a small saw) an inch or so from and on both sides of the breast-bone. Remove the breast bone entirely. Make cross cuts in the skin, so it may be laid back, exposing to view the thoracic and abdominal cavities and its organs, being careful not to injure these organs.

The lungs when healthy are pink, soft and filled with air, but in cholera the surface shows numerous small red spots of varying sizes. These spots can not be washed off. Portions of the lung may appear solid, heavy, will sink in water and be gray to dark red in color. Although the heavy discolored area is not always characteristic of cholera the red spots are.

The heart is next to be examined. Remove it from its sack or covering and examine the surface for spots similar to those formed on the lungs, these spots are quite characteristic of the disease.

There will be no marked changes in the liver although it may be darker.

The spleen, lying slightly below and to the right of the stomach, is large, soft and very dark.

The kidneys should be removed from the body, their thin covering be taken off carefully, so as not to injure the organ's surface. The kidney of a healthy hog is light brown and evenly colored. Cholera infected kidneys will be found to be covered with numerous small dark red blood spots. Be sure and examine both kidneys.

The stomach should be opened and the contents washed out with water. The lining of a healthy stomach is pink and wrinkled, but in cholera may show areas that are highly inflamed.

The small intestines may and probably will, be covered with small blood spots similar to those formed on lung, heart and kidneys.

The large intestines are a continuation of the small and in cholera cases may show blood spots on the outside and in cases where animals linger some time before dying there will be formed on the inside surface characteristic yellow, hard, round, ulcers, generally called "button" ulcers, varying in size from very small to the size of a quarter.

Lymph glands are found in various parts of the body and if normal should be of a light gray color; in cases of cholera these glands are enlarged and dark in color.

The inguinal lymph glands are readily found just under the skin, midway between the hind legs, the small lymph glands (mesenteric) are found along the intestines and in cholera cases will be swollen and dark in color.

So, if some morning, when doing the chores and on coming to the hog pens to feed, some of the animals are off their feed, are stiff, are hiding in their bedding and have a high fever—better call some veterinarian and place the entire case in his hands. You probably have hog cholera in your herd. If you don't do this, and the next day more of the animals are completely off their feed, have diarrhea and a high tempera-



H. H. Bryant, D.V.M.

ture and possibly one or more are dead; if on post-mortem you find the above mentioned changes, then you'll know darn well that you have cholera! Post a notice on your farm to warn your neighbors and beat the authorities to it. Isolate your sick animals, and then go out behind the barn and kick yourself for not having had your entire herd properly vaccinated weeks ago.

A Horse's Neck

There is probably no part of the horse's body subjected to so much neglect and abuse as the neck—which is the collar seat. And yet nothing is more easily remedied by the mere application of "horse sense" plus care.

A horse with a sore neck is out of business and becomes an item of expense on the farm. The collar seat and neck should be carefully studied when fitting a collar. This collar should be just large enough without being too large. While a collar that is too large is bad enough, it will not cause the trouble that one which is too tight will accomplish. The latter may entirely ruin the future usefulness of a horse.

The collar should fit the shoulder well all around and be just large enough so that the open hand may be freely passed between the animal's neck and the collar. The hames should

(Continued on page 41)

VETERINARY QUESTIONS AND ANSWERS

Cloverland Magazine: Could you tell me any way to prevent milk fever cases in my dairy herd? I have been troubled every spring with a case or two. I have been very careful to thoroughly milk the cow and I am careful of feed, but still I am troubled.

J. B. C., Hurley, Wis.

Try "drying off" your cow about two weeks before calving. Eliminate the feeding of rich foods. Provide all the exercise possible, plenty of water, some laxative food stuffs and a roomy stall with plenty of ventilation. Also do not milk the cows completely dry during the first three days. Allow the milk to feed and if it does not seem to be enough milk follow by milking just enough more to relieve the fullness of the udder. If, with these precautions, one of your cows has milk fever you have done all that was possible to prevent it. Therefore, call a veterinarian as soon as you can get one. The percentage of recoveries, even in cases when the animal is pro-

trate, is nearly 100 if prompt and efficient treatment is given.

Cloverland Magazine: I have trouble every year with my horses' legs around the feet. They have what is called scratches. What can I do to prevent this and can I cure it myself?

J. DeS., Elgin Ill.

The trouble, I am sorry to say, is quite a common one and is due entirely to neglect and carelessness. Keep the horse's stall clean. Manure which accumulates in the horse barn probably causes the trouble. Always clean and dry the horse's pastern when returning from a wet and muddy trip. Clip the long hair from around the fetlock and to cure the scratches avoid all grease or salves. Thoroughly clean around the foot and use a dry astringent powder. Equal parts of tannic and boric acid will do. This should be dusted on the afflicted parts. Observe the above rules and you will have no further trouble.

Cloverland Magazine: I am in the dairy business and have been selling my calves to a stock buyer, who, in turn, butchers them and gets good prices. I am thinking of doing this myself and taking this extra profit. What is the best age to slaughter and what laws are there concerning this? How old must calves be when offered for sale as food?

J. C., Gay Mills, Iowa.

The best age for the slaughter of calves for food depends upon circumstances. If you have the time to feed them, if you have a supply of feed and if the market for milk is not good, then it pays to keep the calves for at least four or six weeks. Nothing will put on weight more quickly than a suckling calf or a calf getting whole milk as its ration. When the high price of veal is considered there are lots of inducements to keep the calves for some time in order to get this added weight and the increased price. However, if you are short handed,

have a good market for your milk and the calf is in good condition, it can be placed upon the market in about three weeks. The government regulation on age is three weeks. Many cities have increased this age limit to four weeks and a few eastern cities have a six weeks clause. So it depends on the locality in which you live. When you dress a calf for market see that it is clean outside as well as inside. This will add to the selling price. Another very important thing to remember is to thoroughly cool the carcass before shipment and thus avoid what is called "souring" of the meat. This renders it unfit for food and if it occurs means a total loss. Get the weight of the carcass before shipment and then ship to a reliable commission house, unless you are in a position to deal directly with some retail market man.



Woman and the Home

By HARRIET L. HARLOW



WILL \$30 A MONTH BUY FOOD FOR TWO?

A YOUNG woman asks the question. She wonders whether she can possibly buy food enough for two people—to keep them in proper physical health—with thirty dollars.

At present prices it hardly seemed possible when I first considered it, but I wrote to this young woman, after a good deal of figuring, and offered her something that at least approached the limit she has fixed.

Not so many years ago it wasn't very difficult for me to do just this thing. The foodstuffs which I was then buying, for two, did not cost more than the specified figure. Today I am doubtful. I confess that I am not doing it myself. Whether it actually can be done can only be proven by actual experience—and the experience must extend over more than just one month. In any event, the question is an interesting one. It affects every household.

Perhaps some of my readers can answer it better than I have; perhaps they can point out where my suggestions are impractical. Perhaps they can substitute something else that will help this particular young woman and hundreds of others situated as

THE LETTER

"Would it be asking too much for a menu for two grown people, moderate eaters. I wonder if it is possible to have a well balanced menu which will come not to more than \$30 a month. I realize how frightfully high food is, but would like to come within the \$30 limit for two people. Perhaps it isn't possible, but can you help me? We have potatoes, fruits and pickles in our larder. I am a young housekeeper just "launching out," with a limited income. Our rent is \$30 a month. My husband says a \$30 a month food bill is almost impossible, but I think by a little sacrificing it can be made possible. We like meat once a day and are both fond of milk—which is twelve cents a quart here."

she is. I should be glad to hear from my readers on this question. It must be remembered that farm experience and town experience will be a little different. There usually are foodstuffs put by in the farm larder that are not available in town. However, here is my answer:

"I think you are right—two people

CAN manage on \$30 a month even at present prices. It will, of course, require clever housekeeping on your part, careful economy, and perhaps a little adjustment in tastes.

"In submitting a grocery and meat list I find that the total is \$38.55. An explanatory note under the meat list will, I think, indicate how this can be

promptly reduced.

"I am assuming that neither you nor your husband are engaged in heavy outdoor work. If I am mistaken in this, then you will have to substitute heavier dishes for the fruit and the lighter rations which I have provided.

"My figures, of course, cover food stuffs alone. They do not include other household necessities, like soap, cleansers, brushes, matches, etc., etc.

"I have used prices as I find them at retail here. These may differ somewhat in other places.

"You will, of course, use your judgment in the matter of substitutes and changes. I suggest, however, that you carefully study the menus before making changes—because I have tried to use, with each meal, what should be left over from previous meals. You must also remember that if your Sunday roast, for instance, should prove unusually appetizing, and you should therefore eat it all on Sunday, you will not have a proper balance left for your Monday dinner. In other words one form of sacrifice will lie in "filling up" with potatoes, bread, or other less tasty, but equally nutritious parts of each meal."

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Grapefruit (1) Sourmilk Pancakes with Syrup (2 eggs) Coffee	Prunes Oatmeal Toast Coffee	French Toast (2 eggs) with Jelly Cereal with Milk or Preserved Fruit Coffee	Prunes Oatmeal Toasted Rye Bread Coffee	Grapefruit Prepared-flour Pancakes Syrup Coffee	Prunes Oatmeal Toast Coffee	Preserved Fruit Corn-meal Muffins (cold or toasted in oven) Coffee
Roast (Pork, Beef, Veal) (4 lbs., \$1.60) Mashed Potatoes Stewed Tomatoes or Corn (1 can) Pickles Apple Pie Tea	Sliced Roast, cold or heated (left over from Sunday) Boiled Potatoes Scalloped Tomatoes or Corn Pickles Apple Pie Tea	Corned Beef (2 lbs.) With Cabbage (½ head) Boiled Potatoes Gelatin Dessert Tea	Hash (left over meat with potatoes and onions) Baked Potatoes Cabbage in Vinegar (½ head) Gelatin Dessert with Preserved Fruit Tea	Pot Roast (2 lbs.) Mashed Potatoes Pickles Bread and Oleo Lemon Pie Tea	Baked Beans with Bacon (1/3 lb.) Fried Parsnips Pickles Lemon Pie Tea	Stew—from left over pot roast, and ½ lb. veal—cooked with car- rots, potatoes, and onions Rice Pudding Tea
An evening meal, con- sisting of nothing but bread and milk is a wholesome way to end a lazy day.	Potato Balls (1 egg) with Bacon (¼ lb.) Milk Bread Prune Cake (2 eggs)	Hot Potato Salad (½ lb. Wieners) Hot Muffins Milk	Creamed Codfish (½ lb.) Bread Fried Baked Potatoes Pickles Prune Cake Milk	Boiled Rice with gravy from roast Bread or Toast Baked Apples Milk	Oyster Stew (1 pint) Crackers Cocoa Hot Corn-meal Muffins.	Potato Pancakes Apple Sauce Milk



Beautify Your Home Surroundings and Win a Fifty Dollar Check

IN the last issue of the Magazine, I announced prizes of \$50.00, \$25.00, and \$10.00 for the best improvement in farm home surroundings. The contest has awakened so much interest and has brought so many inquiries

that I want to outline the conditions once more.

First, I want to reassure those who live in towns, and even in cities, that everyone is eligible. Many seem to think that the contest is restricted to the actual

farm home alone. This is not the case. Improvement in gardens or yards around town or city homes is quite as important as improvement around farm homes. In any case, these improvements mean greater cheer and greater family happi-

ness. They mean attractive and enter-
terted home life. They distinctly aff-
the children who may live in these hom-
and, therefore, the Magazine wants a

(Continued on page 16)



There's a Council Meat for every meal

THE delicious flavor of Council Meats and the ease with which they are prepared have made many thousands of Council enthusiasts. Never before have packaged meats made so many friends.

Make room for a Council shelf in your pantry. Council Meats can be served hot or cold—for the substantial meal, the light lunch or the unexpected guest. They are all meat—no waste.

COUNCIL CORNED BEEF HASH—Browned for breakfast! Crisp—something to start a day right. Just open a package—turn it into the frying pan with a little fat—brown slowly—that's a great breakfast! Write for free cook book, "Appetizing Suggestions."

INDIAN PACKING CORPORATION

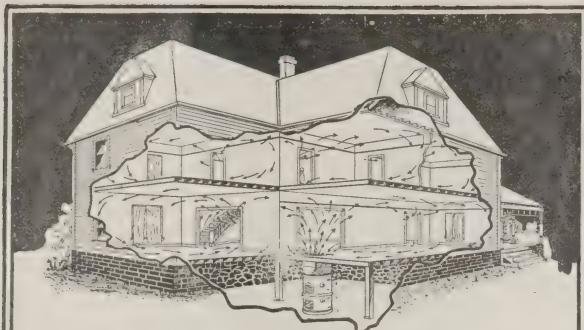
General Office—Consumers Bldg., Chicago

"All the Taste Without the Waste"

- | | | |
|----------------------|----------------------------|------------------------|
| Vienna Style Sausage | Corned Beef Hash | Sliced Dried Beef |
| Corned Beef | Hamburger Steak and Onions | Veal Loaf |
| Lunch Tongues | Potted Meat-Products | Sausage Meat |
| Roast Beef | O'l Mammy Hash | Ox Tongue |
| Genuine Deviled Ham | Tripe | Genuine Deviled Tongue |
| | Oven-Baked Pork and Beans | |



*Fresh from Sunshine
and Pure Air*



Heat Your Entire House From One Register

SIMPLE — WARM — COMFORTABLE

Just this one large register. The hot air comes up through the center circle and the cold air goes down the other compartment between the circle and the border. It's right over the Quaker Pipeless Furnace.

More heat—and just where you want it—always ready. To warm that cold room, just open the door. The

Quaker Pipeless Furnace

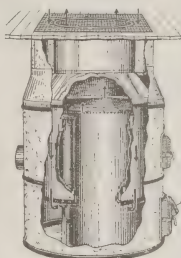
has no pipes, no bulky cold air returns. Your walls are not torn up, no cellar is too small.

Will burn any fuel. Particularly adapted to soft coal. Special humidifier keeps the air always moist.

The furnace is built of heavy boiler plate steel, no cemented joints to leak gas, dust or soot. Fire pot lined with high-test fire brick, capable of withstanding 3000 degrees of heat. An abundance of clean, pure warm air sent to every room. Simpler than a stove to operate, cleaner, more saving of fuel, and much more healthful.

Sends heat to every room in the house. Ventilates as well as heats. Changes and purifies the air to every room. Keeps the cellar cool for fruit and vegetable storage.

Write MARSHALL WELLS CO., at Duluth, for advice as to size to use; price will be quoted and order handled through your local dealer.



Arrows show direction of air currents



Truly a Quality Coffee

It is the result of twenty-two years
of careful and intelligent blend-
ing by coffee experts.



INSIST ON THE GENUINE

ROASTED and PACKED BY

JOANNES BROS. COMPANY

GREEN BAY, WISCONSIN



Woman and the Home

(Continued from page 14)

GROCERY LIST

	Quantity for 1 week	Quantity for 1 month per unit	Cost	Total
Apples.....	1/2 peck	2 pks.	@50c	\$1.00
Beans.....	1 lb.	4 lbs.	@12 1/2c	.50
Cereals.....	1/4 pkg.	1 pkg.	@25c	.25
Cabbage.....	1 head	4 heads	@20c	.80
Cocoa.....	1 can	1 can	@30c	.30
Corn.....	1 can	4 cans	@18c	.72
Cornmeal.....	1/3 lb.	1 1/3 lbs.	@10c	.13
Coffee.....	1/2 lb.	2 lbs.	@60c	1.20
Crackers.....	1/3 lb.	1 1/3 lbs.	@10c	.13
Eggs.....	1 doz.	1 doz. fresh	@75c	.75
Flour.....	5 lbs.	25 lbs.	storage @60c	1.50
Gelatine.....	1 pkg.	4 pkgs.	@12 1/2c	.50
Grapefruit.....	1/2 lb.	8	@75c per doz.	.57
Lard.....	1/2 lb.	2 lbs.	@38c per doz.	.24
Lemons.....	2	8	@36c per doz.	.32
Milk.....	7 qts.	31 qts.	@12c	3.72
Oatmeal.....	1/2 lb.	3 lbs.	@10c	.30
Oleomargarine.....	1/2 lb.	5 lbs.	@40c	2.00
Onions.....	1/2 lb.	2 lbs.	@8c	.16
Pancake Flour.....	1/2 lb.	1 lb.	@25c	.25
Parsnips.....	2 lbs.	8	@5c	.40
Prunes.....	1 lb.	4 lbs.	@30c	1.20
Rice.....	1/2 lb.	3 lbs.	@20c	.60
Rutabagas.....	1/2 lb.	3 lbs.	@5c	.15
Sugar.....	2 1/2 lbs.	10 lbs.	@20c	2.00
Syrup.....	1/4 lb.	1 can	@25c	.25
Tea.....	1/4 lb.	1 lb.	@70c	.70
Vegetables, other than listed.....	1/2 lb.	4 lbs.	@5c	.20
Salt, Spices, etc.....				.50
				Total \$24.45

MEAT LIST

	Quantity	Cost	Total
Roast.....	4 lbs.	16 lbs. @40c	6.40
Corned Beef or substitute.....	2 lbs.	8 lbs. @25c	2.00
Bacon.....	1/2 lb.	2 lbs. @1.20	2.40
Wiensers.....	1/2 lb.	2 lbs. @.40	.80
Codfish.....	1/2 lb.	2 lbs. @.20	.40
Pot Roast.....	2 lbs.	8 lbs. @.25	2.00
Veal or substitute.....	1/2 lb.	2 lbs. @.25	.50
Oysters.....	1 pint	3 qts. @.60	1.80
			Total \$14.10

Grand Total \$38.55

THIS meat list provides for ten pounds of meat and one pint of oysters per week. If I am correct in my assumption that yours is not an outdoor family, then this meat supply is almost too liberal.

About one-half pound of meat per person, per day, should be enough. By careful management you may, therefore, be able to cut down this weekly allotment. In fact, you MUST cut it down if you want to remain within your \$30. The combined meat and grocery list, as you have noticed, aggregates a total of \$38.55. This, I think, is due largely to the small-quantity purchases which I have used to figure a weekly consumption. I feel sure that after two or three weeks there will be small accumulations which will reduce future purchases.

Apples are an excellent and an inexpensive fruit. We ought to use more of them—either baked, as sauce, or in pies.

I have included cereals in your breakfasts solely to provide variation. Grape-nuts, crumbles, corn flakes, or anything else you may prefer, can be used.

I have included corn, because it is an excellent vegetable; you can vary it with tomatoes, and possibly some other kinds of canned goods. However, canned goods are very expensive just now. It is for this reason that I suggest the use of rutabagas, carrots, cabbage, and similar storage vegetables. I would buy them whenever possible, rather than canned goods at present prices.

Cornmeal is inexpensive and nothing is better than cornbread or corn muffins. They require eggs, however, which, of course, brings the cost up. Your coffee allowance under these menus is rather low. Remember, however, that coffee, if poured from the grounds and kept in the ice-box, can be reheated and used the next day. There need not be an ounce of waste in the matter of coffee.

Gelatine makes an inexpensive foundation for many kinds of desserts. It can be served with fruit, with various sauces, with a chocolate dressing made from cocoa, and with fresh fruit.

Grapefruit is a luxury. The fruit has, however, distinctly beneficial ef-

fects upon the digestive tracts. I take these menus I am suggesting that you serve one-half grapefruit for each of you twice during the week.

I am providing thirty-one quarts of milk, but no cream. I am assuming that you will skim the milk, and then get cream for your coffee, and then you will be willing to use milk on the oatmeal rather than cream. Remember that skimmed milk is very slightly under whole milk in NUTRITIVE value. We usually get all the fats I need with our meat, and with our butter or oleomargarine.

Oleomargarine is used throughout these menus rather than butter. I am afraid that with butter at present prices you will exceed your \$30 limit if you tried to use it. Good Oleo (as I prefer it uncolored) makes a very good substitute, and really calls for very little sacrifice.

Prepared pancake flour not only makes excellent cakes, but is very able because it does not call for eggs.

Prunes are a much under-estimated fruit. If you dislike them you ought to cultivate a taste for them. They are comparatively inexpensive, and fill an important place in the diet menu.

Oatmeal is one of the best possible breakfast foods. If you like it, use even more frequently than provided for in these menus.

Fruit is an important adjunct, help to conserve health, and balance menus that include starchy foods.

(Continued from page 14)

woman who may be interested, to hesitatingly send in her name.

The conditions are very simple: about April 1st, take a picture of your home and its immediate surroundings. Send this to the Women's Editor. July 1st, take a second picture, and October 1, take a third. Mark these pictures carefully, and send each of them to me as soon as they are developed. The home that shows the best improvement, the greatest amount of thought and attention, and care, will receive first prize—a check for \$50.00. The second best will receive a check for \$25.00, the third best, a check for \$10.00.

Remember, the home which is extremely unattractive is likely to show the greatest contrast. The simpler the home is, the more likely it is to win prize as the home of unlimited means.

In fact, it is not the Magazine's purpose to award big expenditures. I propose the prizes to go to the farm woman

Woman and the Home

who has ideas and makes improvements without money.

Now, how to begin: First of all, in the case of the men-folk to plow up a border. Next, get all the shrubs possible to the back half of this border. If you use upon a fence, you will be able to find the necessary shrubs in the wood lot or in nearby woods. If you can afford to buy shrubbery, then I suggest the Tartarian Honey-suckle. This shrub, in good soil, grows to a height of twelve or fifteen feet. It is an excellent background. But do not plant it in rows. Group it rather, in bunches and cluster it into the corners and at intervals along the border. Syringa is another shrub that will prove valuable. It does not grow to quite the height of the Honey-suckle, and can therefore be planted in front of it.

One of the most satisfactory of all shrubs is the Spirea or Bridal-wreath. I had to choose one shrub from among my hundreds. I think it would be the Bridal-wreath. Its beautiful, compact growth, its wonderful flowering qualities, and its easy culture, commend it in every possible way. Properly grouped, Bridal-wreath alone will make any home beautiful.

Bridal-wreath can be planted in front of Honey-suckle or Syringa, although in good soil it will sometimes grow to about the same height as the Honey-suckle, would, therefore, prefer to plant it between the Honey-suckle clusters.

The common Lilac is another shrub that has a place in the border. Do not plant it indiscriminately, however; it tends up shoots that may spoil the effect of a well planned border, especially if the shrub is scattered about among other

species. Lilacs ought to be clustered and rigidly kept in a definite section of the border.

I strongly advise the amateur gardener to keep away from fancy strains of the Lilac or other of our common flowering shrubs. The Persian Lilac, for instance, may be superior in the hands of a highly skilled gardener. My own experience is that the health and vigor and free flowering qualities of the common stock have been bred out of these "refined strains."

The Japanese Barbary makes a very satisfactory low growing shrub to plant in front of those already named.

Be sure to select the Japanese variety and not the so-called Common Barbary. Experts tell us that the "common" Barbary harbors the spores of Black Rust—so ruinous to the wheat fields and other grain crops. Personally, I rather doubt the scientists; I rather feel that Black Rust spores will find a new host if we destroy the common Barbary; but the fact remains that those who are best informed have declared war against this particular barbary—so use the Japanese variety.

In front of this mass of shrubbery, you should leave a well spaded strip anywhere from two to four feet wide in which you will plant annuals and perennials. You can get wonderful wild flowers along any railway track.

It is hardly necessary for me to discuss other flowering plants. Write to any of the seed companies whose advertisements you will find on another page, and study their catalogs. Properly selected, you can get enough seeds to make the border a mass of bloom through the entire summer, for a dollar or two.

Rickrack Braid and Various Ways of Using It

The old fashioned rickrack and serpentine braids used years ago by our grandmothers, has again come forth in style.

For wearing, these simple flat braids will usually last longer than the material they are used on.

For children's dresses, nightgowns, and undergarments, there is no trimming more simple and durable than the scalloped braids. Feather stitching, fagoting or the darn stitch, used in bright colors with the braid, also adds to the charm of the dresses. White curtains made of dotted swiss, with hem applied and edged with pink, or yellow rickrack makes very

pretty bedroom curtains. White rickrack may be used on kitchen or pantry curtains.

Pillow slips may be cut with a pointed edge and rickrack applied with a simple crochet edge to finish them.

Band trimming may be made of rickrack crocheted on both sides and applied to both sheets and pillow slips, for the guest room.

Are the table linens going to pieces? Tray cloths, napkins for the children, or luncheon doilies, may be made from the still good parts. Tray cloths and doilies may be edged with rickrack in white, blue, or pink.

Boys' and Girls' Puzzle Problem

GRANDFATHER gave a children's party at which 20 little guests were present. The old gentleman had prepared a surprise for the children, each of whom was to receive a live canary. But when the time came to present the canaries, it was found that many of them had flown. The host sent out for others to replace them, saying to the messenger: "Bring back as many and half as many—that is, one and a half times as many as there are left in the cage, and two and a half more."

When the messenger came back with these there were enough birds to go round, making 20 in all. How many canaries flew away?

A cash prize of \$5 will be given the boy or girl who is first to send to Cloverland Magazine the correct answer and the best solution of the problem. All others sending in a correct answer will be given free a one year subscription to Cloverland Magazine. Address, Puzzle Editor, Cloverland Magazine, Menominee, Michigan.

THE ANSWER to the Boys' and Girls' Puzzle in the February number is 600 seats.

The winner of the cash prize of \$5, Arthur A. Sehlin, R. F. D. No. 1, Box 1, Redtop, Minn. Honorable mention given Ellen Blomquist, of Metropolitan, Mich., and Farnham Boose, 23 Newberry Avenue, Marinette, Wis., both of whom were close second in the first prize with their solutions of promptness in returning correct answers. Arthur Sehlin and Ellen Blomquist solved the puzzle by arithmetic, while Farnham Boose used algebra. Many answers were algebraic solutions, but more than half the answers failed to show the process of solution. The answers were given first and then a proof submitted. Whereas the solution required detail showing the manner in which the problem was solved.

Following is the winner's solution: One-third of the seats at 50¢ each would bring in as much as two-thirds of the seats at 25¢ each. Fifty dollars is what

they would have gotten for the other third. Twenty-five cents is contained in \$50, 200 times. Thus, one-third of the seats equals 200 seats. Then three-thirds of the seats equal three times 200, or 600 seats in the hall.

This is the way Ellen Blomquist solved the puzzle:

One-third of the seats were sold at 50¢ each. If the seats would have been sold at 25¢ each, twice as many or two-thirds of all the seats in the hall would have been sold. If they would have made \$50 more by selling all the seats in the hall at 25¢ each, then by selling one-third at 50¢ each, \$50 was one-third of the income, which was \$150. \$150 divided by 25¢ equals 600, or the number of seats in the hall.

Following is the solution in algebra submitted by Farnham Boose:

X Equals number of seats in hall; 50¢ is price per seat; If 25¢ were price per seat, X seats would have been filled; instead, only $\frac{1}{3}$ or $\frac{X}{3}$ were filled; if price were 25¢, the receipts would have been \$50 more, or $\frac{X}{3}$ times 50¢ plus \$50 equals X times 25¢; multiplying, X times 50¢ plus 50 equals X times 25¢; dropping signs, X times 50 plus 500 equals X times 25; multiplying, 50X plus 1500 equals 25X; transposing, 25X equals 1500; dividing, X equals 600.

Therefore, there were 600 seats.

Hard Work Tires

muscles and nerves, and then to whip them with coffee, with its drug caffeine, makes a bad matter worse.

POSTUM CEREAL

is a drink for workers that contains no drug, but furnishes a finely flavored beverage, full-bodied and robust, pleasing to former coffee drinkers.

Two sizes At grocers
Usually sold at 25¢ & 15¢

Made by
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"Dainty Suggestions"

TEMPTING Tid-bits, "Chocolate" dipped, as only "JOHNSTON" knows how. The best that money can buy. TRY THEM. The smack of satisfaction is sure to follow.

Chocolate Tutti Frutti
Chocolate Virginia
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Chocolate Angel Food
Chocolate Fig Cake

The opinion of thousands of satisfied customers is that JOHNSTON'S SWEET BISCUITS are in a CLASS BY THEMSELVES

ROBERT A. JOHNSTON Co.

"Famous for Biscuits"

MILWAUKEE, WIS.

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Suggestions for Spring Home Dressmaking

EASTER, this year, arrives early in April. We will look through our spring and summer clothes of a year ago, and find that many new things are needed.

This year, because of the continued high prices, many of us will have to combine and make over materials. How many mothers have been attending pre-inventory sales and picking up remnants of voiles, ginghams, chambrays, organdies, lawns — and even odds and ends of silks—say in two, three, and four yard lots?

These pieces will be less in price now than the new goods that come later; and this material and style are just as good when used with old material.

One of the new materials shown this season is printed sateen for children's wear. The fabric has rather a cheap sound, along with that of practicability, but good sateen is not cheap in the sense of ante-bellum prices.

The colors are mostly dark with white figures, and for that reason they combine prettily with white pique, organdie, linen, or cotton ratine, that has been found on the remnant counter, or some dress left over from last year.

In last month's issue, we planned a few simple things for the mother, as her own dressmaker, to try and make. We feel sure that she succeeded.

Below I am illustrating a few simple dresses to be made of old and new material for little girls.

FIG. I: This dress can be made of new material for the slip-on skirt and old material of last year's dress for the guimpe. Plain blue combined with blue and white check, is pretty for a child from two to six years. The skirt part requires two yards of thirty-inch width, and one yard, thirty-six

inches wide, for guimpe, for a child of four years.

FIG. II: In this plain little dress for a child from four to eight years, we can use an old silk skirt of mother's for the slip-on part, with a few self-covered buttons for trimming. For the guimpe, a remnant of white voile or organdie, bought on sale, can be used.

An old silk or net waist of sister's can be used for the guimpe, also.

FIG. III: In this little dress for a child from two to six years, we can use our new material, printed sateen, and white linen for the guimpe.

Note the cuff of sateen and band of white linen on pocket, also the bloomers of same material, for which just one and one-fourths yards more of material are required.

How sensible is this outfit for school or play!

FIG. IV: For an older girl of eight or ten years, comes this practical dress made of cotton ratine or crepe, with a white lawn waist.

Little lace ruffles are used on collar and cuffs, the darn stitch for trimming the slip-on, and two bands of black velvet drawn through slots for a belt makes a very neat dress for Easter wear.

FIG. V: And this spring, the little girl must have a new coat. Materials for these garments are very high, so we surely have some old garment that can be used.

The new materials used for these little coats are broadcloth, duvetyne and velvet.

Now if mother or sister have a broadcloth or French serge skirt, perhaps worn at the hips, why not combine with some velvet or sateen and

develop the smart little-coat.

A small hat of the same material should be made to match the coat.

We must not forget the school-girl this month. There is little change in styles this spring for her, but still many of the old garments of last year may be too small for her. While the skirts of last year were tight and narrow, this spring there is more fullness, and much trimming for the hips.

We may possibly be able to widen the skirt for a girl of fourteen to sixteen years, if she has not grown too tall, by drawing the skirt up, until it is full enough about the hips, then let out the hem or put on a false hem of new material. Pipe the top of the hem as is set on the skirt and it will resemble the "cuff" that is now worn.

If new material is used for false hem, also put on pockets and make a new belt. If the last year white skirt cannot be used as a skirt, let's use it for a Russian blouse, a style which is always worn by the school-girl and very good this spring.

If skirt does not furnish enough material for sleeves, cuff, collar, and belt, new material may be used.

There are so many different styles to choose from for the blouse, that I am only illustrating one.

FIG. VI: This blouse would be very pretty made from an old dark blue middy skirt. There is plenty of material for the body, and sleeves, in the skirt, and white linen or ratine could be used for the collar, belt, vest, pockets and cuffs. Buttons are used for trimming on one side of vest and button holes on the other.

The cross stitch in dark blue floss is used on vest, pockets and collar.

These little blouses may also be made from the skirts of thin dresses, which are too small for the growing girl this year. Made from pretty fig-

ured lawn or voiles and trimmed with plain white, they can be worn with the heavy white skirt.

FIGURES VII and VIII: For Easter Sunday the mother in the home feels she would like a new dress, but there were so many things that the children must have this spring and materials are so high, that the mother always feels she must wait. Look over your old silk suit or dress, and see if by adding a little new material, one of these dresses cannot be made. In the one to the left, the old silk suit can be used to very good advantage with one and three-fourths yards of new plaids for trimming. If the skirt is gored, raise it four or five inches and lay in folds for the tunic. The same may be applied to the waist made from the coat.

In the figure at the right, an old silk skirt may be used for the plain part of the dress and two and one-half yards of pretty foulard for the figured part. A plain white organdie or sateen collar finishes the neck.

In making over old material, one thing must always be remembered—it must be thoroughly cleaned and pressed and no worn parts used. Good judgment must always be used in combining materials or the wearer will soon tire of the garment and, lay it aside, thereby wasting time spent in making and also new materials bought.

A very good bulletin has been issued by the Extension Service of the College of Agriculture of the University of Wisconsin, on "New Clothes at Small Cost." Copies of this bulletin will be sent free to residents of Wisconsin upon application. Residents of other states may have copies by sending five cents in stamps to the mailing room, College of Agriculture, Madison, Wisconsin.

ALFALFA—Spring Seeded

(Continued from page 6)

information rendered as to their value for grinding purposes.

Ground limestone may be used in several grades. Although the coarse form is cheaper, the finely ground product brings more immediate results with smaller applications. Generally from two to four tons to the acre are required, but the amount used should be gauged entirely by the fineness of the limestone and the results obtained with the soil acidity test. Better use too much than too little, as an excess does no damage and makes the application last much longer.

Marl is an excellent form of lime but is generally difficult to buy. Waste limes such as airslaked lime, and lime refuse from sugar beet factories and lime kilns, are good if bought right. As these by-products are often stored outside and are thus exposed to rain, it is important to know the moisture content before purchasing in any considerable quantity. They may also hold true with ground limestone.

Lime should always be applied to the surface of the plowed soil and then harrowed in. It may be applied in the fall, winter or spring. It should never be plowed under. Sandy soils are best limed in the spring, before seeding, as there may be some loss by leaching if such soils are limed in the winter or fall. Lime can be spread with a shovel directly from the wagon box on a still day. Lime refuse and other forms of damp lime are very conveniently spread in this way. Where large amounts are to be handled, lime spreaders are used to good advantage. The manure spreader, too, can be used for spreading lime. The apron needs to be covered with a few inches of manure or barnyard chaff and the machine run at the lowest speed, so as to distribute about four loads to the acre. The lime is then spread on this layer and enough hauled in each load to make the desired application.

As a top dressing ground limestone has not proved effective except on loose, open, sandy soils where the lime will work its way down where it is needed. In such cases it can be applied in the fall, winter or early spring. With heavier soils, lime applied to a plowed field and worked in when the seed bed is prepared gives more profitable results than lime applied as a top dressing any time after seeding.

Alfalfa is a new crop in Wisconsin, Michigan and Minnesota. Where alfalfa has not been previously grown, the soil frequently requires the introduction of special bacteria before a successful stand can be obtained. Inoculation is the process of adding these bacteria to the soil or seed.

When the bacteria are present in the soil in limited numbers, the plants that are not acted upon by them often become weak and winterkill. This is especially true of poor soils low in nitrogen. In some sections of the state the ground is sufficiently supplied with alfalfa bacteria so that inoculation is not necessary, but there are many localities where the bacteria are present in such limited numbers that it seems impossible to get a good stand to survive the first winter.

Sweet clover, formerly regarded as an ordinary roadside weed in nearly all of the southern and eastern counties of the state, is one of the alfalfa bacteria distributors. Fields may be successfully inoculated by scattering upon them one ton of soil from an old alfalfa field or from land upon which sweet clover has grown.

A much more convenient method of inoculation is now possible since the bacteriology department of the experiment station has been furnishing farmers with cultures at the cost of preparation. One bottle is sufficient to treat the seed for one acre. Excellent results have been obtained with the culture and farmers over the entire state are taking advantage of this helpful service.

A good scheme to get the entire farm inoculated for future crops of alfalfa is to use two pounds of inocu-

lated alfalfa seed an acre with every grass and clover seeding. The scattered alfalfa plants serve as distributors of the alfalfa bacteria in the soil and at the same time improve the quality of hay.

The principal factor in getting land ready for alfalfa is to have a firm seed bed with the lumps on the surface well broken up. Fall plowing for heavy soils gives time for the land to settle and develop the proper firmness. Alfalfa sown on spring plowed ground, and especially on loose sandy soils that always require spring plowing, is benefited by rolling with a corrugated roller. Rolling aids clover, also, and brings better yields of grain. In general, no farm implement helps to prepare a better and more economically prepared seed bed than does the corrugated roller.

There are many ways of growing alfalfa but the outstanding method used in Wisconsin, Michigan and Minnesota is to spring-sow with grain. The greatest dangers which attend this method are that lodged grain will smother the seeding, and severe drought following the removal of the grain crop may ruin the stand. These difficulties are effectively overcome by cutting the nurse crop for hay just after it is headed out, an important precaution where summer drought causes loss to clover or alfalfa seedings. It gives the alfalfa a good growing start before the dry weather approaches and enables it to withstand the attacks of summer drought and grasshoppers later on. Where grain is allowed to ripen, early maturing varieties should be used, such as Khersin oats (Wisconsin No. 7) or pedigreed barley. Avoid spring wheat or late oats as these grains remain on the soil too long. Grains should be sown at the rate of not more than one bushel an acre to avoid crowding the alfalfa too severely.

Canning peas make a very desirable nurse crop for alfalfa, primarily because of their very early harvesting period. The particular advantages of sowing alfalfa with a nurse crop come from the prevention of soil washing, the checking of weed growth, and returns from the soil in the form of grain or forage the first year.

Winter wheat and winter rye are sown in September, which is too late for alfalfa. These grains may be used as nurse crop with some degree of success by sowing the alfalfa early the next spring before the frost is out of the ground and preferably on top of the last snow. When clay or loam soils thaw out they become honeycombed with cracks and small crevices which later close up and cover the seed. On lighter soils this does not occur so effectually, and harrowing in the seed is necessary, a practice in no way harmful to the growing rye or wheat. While alfalfa seed, like clover, is not injured by being seeded on snow or frozen ground and germination occurs with the onset of warm weather, this method seems to give much better general success with clover than with alfalfa.

One of the surest but most expensive ways to sow alfalfa is to put the soil through a careful weed-killing process by disking and harrowing at frequent intervals and seeding alone in May or June. If the soil is extremely weedy the cultivation should be continued until early in July. Where danger of soil washing is serious this method should never be used. While this plan involves elaborate soil preparations it has its advantages in eliminating the weed difficulty and in giving time for such soil treatment as liming, manuring and fertilization. On sandy soils, where there is not too much danger of soil blowing, it is an ideal way to get a good stand. The average sandy land will not produce sufficient growth of alfalfa when sown with a nurse crop to withstand the summer's drought unless the nurse crop is cut for hay and only two or three pecks of seed used to an acre. The principal value of a nurse crop

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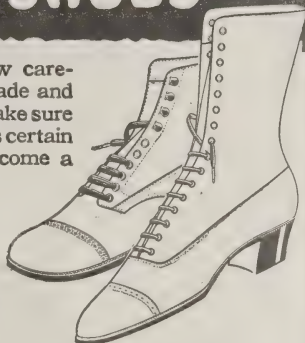
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DORIS I. BOWRON, Secretary

JAMES H. KAYE, President

(Continued from page 19)

for alfalfa on sandy soils is to prevent soil blowing.

Crops like early potatoes and canning peas are harvested early in the summer and the soil can be disked (not plowed) and harrowed in good shape for July seedings of alfalfa with excellent chances of success. This seeding practice, however, nearly always fails with grain crops, which are harvested so much later. They dry out the soil and quite generally drought follows their harvest, making almost impossible the seed bed preparation with disk or plow.

Late summer seedings are always risky. If abundant rains and warm growing weather occur, seeding the last of August may prove successful, but this would be exceptional. Alfalfa should have a growth of from six to eight inches before freezing weather occurs, which means that it is always safest to sow alfalfa not later than the month of July.

Seeding alfalfa in corn at the last cultivation has given success in many instances, and yet it can hardly be termed a safe way to sow the crop. With abundant rainfall and ideal soil conditions it gives excellent success. An inter-row seeder can be used, or an experienced sower can spread the seed by hand or with the use of a whirling seeder. Unless care is taken the latter two methods may result in an uneven stand. The corn is cut for silage or fodder and unless the stubbles are harrowed down the following spring they may cause considerable trouble with the first cutting.

With all due credit to alfalfa as a weed fighter it must be stated that during the first six months of its growth it is helpless in controlling the too numerous common weeds of the farm, such as foxtail, pigweed, and lambsquarter. A thin growth of these common weeds during August need not cause concern but a heavy, tall growth may crowd out the alfalfa. In the latter case, clip with a mower or binder as close to the ground as the height of the alfalfa will warrant. In other words, cut as little of the alfalfa and as much of the weeds as possible. Haul the clippings off before they smother the plants beneath. Attend to this in August. Late fall clipping, cutting or pasturing are dangerous to a new stand of alfalfa and bring on winterkilling.

A light application of fine, well-rotted manure is desirable for the first year's growth. Ten tons of rotted manure to the acre as a topdressing to a plowed field and disked in will do much to insure a good stand of alfalfa, but ten tons of straw manure applied to a new seeding of alfalfa the first fall may smother out some of the plants and thin the stand. After alfalfa has passed its first winter it is not so sensitive to smothering, however, and applications of six to eight tons of rotted manure an acre will prove a wonderful help to the next year's yields.

The amount of seed required for a good stand is dependent upon the quality of seed, the care with which the seed bed has been prepared, and the condition of the soil in regard to lime, inoculation, drainage and fertility. Where alfalfa is easy to grow, less seed is required than where difficulty is experienced in getting good stands. Under our humid conditions, which give weeds and blue grass more than a fair start, heavy rates of from 15 to 20 pounds of high-quality alfalfa seed may be required. This is very well shown by a co-operative experimental test made by 180 Wisconsin farmers, members of the Alfalfa Order, who for a period of three years compared 10- and 20-pound rates of seeding. Eighty-one per cent of these practical farmers reported that blue grass and weeds gave much more trouble with the 10-pound rate and that the 20-pound seeding gave a larger yield of finer-stemmed alfalfa and consequently a hay of much better quality.

In answer to the question, "Which is the best rate of seeding on weed-free, not acid, inoculated, and carefully prepared soil?" these replies were received:

47% declared for 20 lbs. an acre
36% declared for 15 lbs. an acre
17% declared for 10 lbs. an acre

Even under excellent soil conditions the farmers' verdict is in favor of the 15- and 20-pound rates, but when alfalfa was seeded for the first time, under average farm conditions and with the seed bed fairly well prepared but somewhat weedy, the replies were decidedly for the heavy seedings:

91% declared for 20 lbs. an acre
7% declared for 15 lbs. an acre
2% declared for 10 lbs. an acre

Naturally, the farmer would prefer the 10-pound rate because of the lower seed cost, but in spite of this his judgment is for double the amount, especially for those beginning alfalfa growing. This should not convey the impression that a few extra pounds of seed will make up for a poorly prepared seed bed, but it does mean that weeds and blue grass necessitate heavy seeding for the farmers of Wisconsin, Michigan and Minnesota.

Sometimes alfalfa and clover may contain a high percentage of seed which, because of their hard impenetrable surfaces, do not sprout quickly. This condition is quite effectively overcome by a process of scratching or scarification which frequently enables the seed to germinate immediately. Scarified seed usually costs more than an identical lot not scarified, but it is worth more.

Four years' experience and experiment have demonstrated the value of sowing alfalfa mixed with one-fourth timothy. Under ordinary conditions this would mean a mixture of 5 pounds of timothy and 15 pounds of alfalfa per acre. If a good stand is obtained, the first cutting in the year following the seeding will be mostly alfalfa, with a uniform sprinkling of timothy just heading out. At this early stage timothy has a fairly high protein content and good palatability and feeding value, especially when grown in combination with alfalfa. The second and third crops will be pure alfalfa, as the timothy makes little recovery in growth after the first cutting.

The chief advantage of the combination is evident when winterkilling occurs. Instead of letting weeds and blue grass take the place of the dead plants where the alfalfa is thinned out badly, the timothy thickens and spreads out quickly, growing remarkably well on the decaying dead alfalfa roots.

In a four-year old plot of alfalfa and timothy on the experiment station farm over 50 per cent of the alfalfa killed out the second year and the two years following these plots averaged 6,850 pounds an acre in two cuttings. There was absolutely no trouble with blue grass, the much harder timothy having taken the place of the dead alfalfa plants where the alfalfa was seriously winterkilled. On the upper end of the plot where winterkilling was not so serious, the timothy was less and the alfalfa much more abundant. Thus, the two crops are ideally adapted for combined growth. Where alfalfa thins, the harder timothy thickens, but where the alfalfa remains thick the timothy keeps thin. This is one way of solving the winterkilling problem.

Alfalfa, like clover, winterkills. It is not necessarily the cold winters with extremely low temperatures that do the damage. It is the open winters with little or no snow for protection against alternate freezing and thawing, which may cause heaving of the plants or fatal injury to the crowns, or both. Oftentimes the crown and root tissue are only partially killed, in which case the stand may not be seriously thinned but the feeding system of the plants becomes so weakened that the field has a sickly yellow growth and poor yields are obtained. Under these conditions the second and third growths may be much healthier and more vigorous than the first cutting because the roots and crowns have had time to recover from the winter injury. This is particularly true if favorable growing weather occurs during the summer months.

A poor, sickly, yellow growth of alfalfa is often said to be due to improper soil conditions, whereas the

trouble may be due entirely to the severity of the previous winter. Flat lands are affected worst of all. On them the water from melting snow or spring rains accumulates, and when cold weather comes smothering ice sheets put an end to the alfalfa plants beneath. These are discouraging facts which apply not only to alfalfa but to clover and our winter grains, wheat and rye. The best remedy is to avoid late fall cutting and pasturing.

Some winters are so favorable that even with late fall cutting or pasturing alfalfa may not be seriously injured, but this is the exception rather than the rule. Alfalfa should have eight inches of fall growth to hold the snow for winter protection. In view of the frequency of killing winters it is poor policy to take a chance in cutting or pasturing alfalfa after September 10, as this practice makes alfalfa liable to winter injury.

But it still remains true that even where every regulation for growing or handling alfalfa has been carried out it may winterkill. Where this is of frequent occurrence the only solution of the difficulty is to use seed of the hardiest known varieties.

There is all the difference in the world between various kinds of alfalfa. Strains such as the southern Peruvian are very sensitive and will kill out with our mildest winters, while other varieties may weather the hardest winters and be ready for business the following spring. This does not mean that any variety of alfalfa is absolutely winterproof, but it does mean that there are some kinds far superior to others in their ability to withstand severe open winter weather.

Most of the alfalfa seed used in Wisconsin, Michigan and Minnesota is of the common purple-flowered, western-grown variety generally sold as Montana, Kansas, or Dakota grown, depending upon the state in which it was produced. It is an excellent variety, fairly hardy and a good producer, with an erect and up-

right habit of growth which is desirable. There is a preference for common alfalfa seed from the northern states because northern strains are claimed to be hardier. In a measure this claim is true.

Tests conducted with sixteen samples of common seed from growers in New Mexico, Arizona, and California show conclusively that common seed produced in these states is, on the average, decidedly less hardy and more liable to winterkilling when grown in Wisconsin than Kansas seed or common seed produced farther north.

On the other hand, trials made with forty samples of Kansas- and Nebraska-grown common seed in comparison with twenty samples of Montana- and South Dakota-grown seed practically indicate that they are about equal in hardiness. It must be borne in mind that these tests have plainly shown a distinct variation in the hardiness of alfalfa from seed produced by different growers in the same state and even in the same locality. For example, we find an occasional grower in New Mexico whose common seed produces alfalfa that is much harder than that of another grower in the same locality. Likewise, we find an occasional grower in Montana whose common alfalfa is much more tender than that of the average for that state.

These facts should in no way encourage Wisconsin, Michigan and Minnesota farmers to buy high-priced common seed with a fancy name attached and for which special claims of hardiness are made. Some strains said to have originated from very old fields in the west often command an extra premium in price. Our trials with these strains have, with a few exceptions been unsatisfactory.

The most winter-resistant alfalfas thus far found for Wisconsin, Michigan and Minnesota conditions are the Grimm, Baltic and Cossack. Experience and experimental evidence is

(Continued on page 25)

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UNUSUAL USES OF COTTON

ASK the average woman to name articles of women's wear made of cotton and she will doubtless mention a good many "things to wear" including possibly some things oftentimes referred to as "unmentionables," but there are a great many articles of women's wear made of cotton that she will never think of naming because she does not even suspect that cotton has any part in their manufacture.

Among these latter articles are so-called shell, spectacle frames, umbrella handles, hair barrettes, "shell" hairpins, ornamental combs including side and back combs, novelty buttons, belt buckles, bracelets, coverings for shoe eyelets, covering for Cuban or Military heels and for French heels, "shell" tops for handbags, etc.

The manufacturing processes employed in making these articles from cotton are complicated and interesting. The cotton is first converted into fine white tissue paper. This is

threaded, dried and dusted; then immersed in a mixture of nitric and sulphuric acid. This causes a chemical change which renders the cotton soluble in camphor and alcohol. The water is then pressed out of the material which is then ground and, in ground form, mixed with certain stabilizing materials. This dough-like mass is next kneaded between huge rollers, then molded into cakes under hydraulic pressure. The cakes are sliced into sheets and hung up to season.

Sharp dies then cut the material into final form after which any necessary shaping, finishing, polishing and drilling is done.

The varying colorings seen are the result of adding dyes of desired shades when the material is in plastic form. Possibly the most common colorings are the imitation tortoise shell pearls and imitation ivory in the natural tint.

Sweet Clover

The Northwest Experiment station, Minnesota College of Agriculture, at Crookston, strongly recommends the growing of sweet clover on a more extensive scale than heretofore. A recent statement issued at the branch station says:

"Sweet clover is not only one of the greatest soil enrichers, but is valuable feed for livestock. It adds humus to the soil because of the depth to which the roots penetrate and the ease with which they decay. Land that has been cropped with sweet clover which has been inoculated will grow a better stand of alfalfa without further inoculation.

"Sweet clover is commonly sown with a nurse crop. It is more easily plowed up than alfalfa. It is a cash crop when grown for seed and should be tried at least on a small scale by every farmer."

Barley for Hogs

A bulletin recently sent out by the bureau of agricultural research and economics of Armour and Company calls attention to the promising results which can be obtained by using barley as a substitute for corn in hog raising.

Recently the Wisconsin experiment station conducted a test under which twelve lots of pigs were reared, using ground barley in the rations.

The return per pig over the cost of the feed was \$14.33 for the barley-fed pigs and \$12.38 for the corn-fed pigs, which showed a marked difference in favor of barley at present feed prices.

It was brought out that barley might be used in various combinations, one being barley and whey, which netted a handsome return, due to the quick gains made.

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JUDGE FAIRHOPE INTERVENES

(Continued from page 10)

Wattles. "It might be charitable to consider the girl's side o' the matter. I s'pose this girl's done wrong, an' hez come here to Reedsburg—mebbe hopin' fer a good woman t' befriend her. The young I understand, an' she's in strange town. Does it seem right t' drive her out—just now?"

The committee's course had been predetermined. Mis' Wattles brisled.

"After her livin' brazenly there in the house! Why didn't she look up a woman t' protect her when she first come here?"

"Mebbe you're right. Mebbe you're right," mused the judge. "Prhaps if he'd come t' the women o' Reedsburg an' told her story, they'd have sheltered an' protected her. Think they would, Mis' Wattles?"

"The women o' Reedsburg don't have no truck with such as her," snapped that lady.

"No—I s'pose not." The judge gazed out of the window. Without turning, he said abruptly:

"Better send Cyrus up t' see me."

The committee seemed to experience no difficulty in finding Cyrus, for the judge had but fairly settled back in his swivel chair when the deacon rapped into the office.

"Sit down, Cyrus—want to talk t' you."

Cyrus squared an obstinate jaw and wrapped lean fingers around aggressive whiskers. The judge's half-closed eyes regarded the deacon kindly:

"Cyrus," he began, "I un'erstand you're interested in riddin' Reedsburg a girl who seems to hev made a lot o' trouble fer herself, an' perhaps hez caused some little stir among a number o' Reedsburg's citizens?"

"Right-thinkin' citizens, judge; right thinkin' Christian citizens, who on't propose to allow no loose goin's—n' t' corrupt th' youth o' this town or outrage a decent sense o' respectability."

"Yes, Cyrus, I know. Praps, though, we'd better c'sider this ez men. Girl's got a baby up there, I hear. Ain't alone t' blame fer that. Woman never is. Seems like—"

"You're right, judge—an' I b'lieve it's time thet this here Chet Worth," the deacon rubbed his hands, "with his high an' mighty independence, were made t' pay th' debt fer his wrong-doin'."

"Chet Worth!" the judge expressed mild surprise. "Cyrus, ez fur's I'm informed Chet Worth's done no more'n shelter the girl in his house. B't then, mebbe thet remains to be seen. As I was sayin', Cyrus, seems t' me thet mebbe, ez men, we'd oughta go sort o' slow an' charitable like with this girl. Usully some man's more t' blame 'n the girl, in these cases."

Cyrus' jaw came forward aggressively.

"Can't see it thet way, judge. Good riddance t' bad rubbish, sez I. An' it's time the law acted," and Cyrus slapped his knees in emphasis.

The judge's eyes, already half closed, narrowed to just perceptible slits.

"All right, Cyrus," he said, very softly. "I'm jest the judge o' this circuit, an' it ain't fer me to say how ye must proceed. If ye make a case o' it, Cyrus, an' it comes before me I'll try in my own way t' mete out proper justice. So if ye feel it's right, Cyrus, I don't see no way o' preventin' ye from swearin' t' a warrant fer the arrest o' this girl an'—," the judge paused. "an' anybody else, Cyrus, again' who ye think ye got just cause. But, Cyrus, I'd think it over pretty careful—ez a man, Cyrus. Goo' bye."

The deacon departed. He found no difficulty in moving the district attorney when he called next day. He swore to warrants against both Lucy and Chet Worth. Both were issued

(Continued on page 24)



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promptly, and were promptly and quietly served.

Chet, grim and silent, arranged the preliminary details for both himself and Lucy. She did not appear, nor did Reedsburg see her again until Chet helped her from his car at the courts. But then all Reedsburg saw her, for all Reedsburg was there. The court room was packed. Chet and Lucy sat to the right of the crowded benches; Cyrus and the ladies' committee opposite them. Cyrus seemed to enjoy his prominence and the whispered comments about him. Lucy shrank from them. Her eyes were troubled and sought Chet's when hints of hostility came vaguely over the rail from behind them. As for Chet—he defiantly faced the roomful. His face seemed a little white under the tan and his teeth were set. He softened once, when he smiled down at Lucy—a smile of encouragement.

Silence settled over the whispering throng when Judge Fairhope entered. He took the bench, the gavel fell, and the district attorney opened the case.

The judge turned to Chet and Lucy: "Are the defendants represented by counsel?"

"I will represent myself—and—the other defendant," Chet replied.

Cyrus took the stand. His testimony was delivered in high pitched voice that penetrated every corner of the court room. It adduced no facts not already known to Reedsburg—Lucy's coming; her residence at Chet's house; the birth of her baby. He dwelt upon her secretive movements, upon Chet's surly refusal to discuss Lucy with Reedsburg's people, upon the indignation among Reedsburg's women and upon the selfish efforts of the Purity League to purge their city of the pernicious influences.

He spoke vehemently, and neither the judge, the district attorney nor Chet interrupted him. He obviously impressed the crowd and if there was any remnant of sympathy for Chet or Lucy it was dissipated when he finished.

Lucy's head drooped when the baby was mentioned. Under the shelter of the table Chet's hand found hers, and so they sat until Cyrus left the stand.

Members of the ladies' committee followed him. They told of the gossip among neighbors, of the effect upon the young people of the town, and of their own high purpose in bringing the defendants to justice.

Chet dismissed each of them without cross examination. When the last had finished even the district attorney was puzzled. The defense didn't seem to make an effort even—didn't dispute anything.

"That's our case, your honor; the state rests," he said, a little doubtfully.

Chet found Lucy's hand. He squeezed it, and she looked up at him bravely. Then he called her to the witness stand.

Lucy faced the crowded room. There was an expectant hush as she raised her hand. She seemed very young and helpless. Her eyes held Chet's as he recited the oath:

"—the truth, the whole truth and nothing but the truth, so help you God."

She sat down. Chet began grimly, with the formal question:

"Your name is Lucy Sammond?"

"Ye—no—ye—," Lucy faltered.

"—the truth, the whole truth and nothing but the truth, so help you God."

The oath pounded at her temples. A flush mounted to her forehead, then faded out and left her dead white.

"Oh, please—," she began, when interruption came from the bench above her. Judge Fairhope's voice droned softly into the whispering clamor and every voice was stilled.

"The court's goin' to intervine in this here case, at this point," he said. "Call Mrs. O'Brien."

There was a bustle at the doors of the judge's chambers. Then a matronly woman, carrying a bundle of white quilts, made her way to the stand beside Lucy.

"Lucy"—and the judge looked down, over his glasses, "is that your baby?"

Again Lucy's head drooped. She blindly raised a hand to the bundle, where tiny groping fingers found and clasped it. Then a soft, fierce light grew in the girl's eyes. She raised her head:

"It is," she said steadily.

"H'm," the judge turned to Cyrus and the committee.

"Three—four months ago the court got a letter. B'lieve mebbe it'd best be read. Here 't is:

Dear Abner:—My little girl's in trouble—terrible, awful trouble. No one has told me. But a mother's intuition—Oh, I know, Abner; I know. She's gone. She left her little school house three days ago. Nobody knows where. You've got to find her, Abner. You are the only one I can turn to. I was John's dying wish. If trouble comes, go to Abner! Now it's come. My little girl—she's just a child, Abner. You won't blame her, I shouldn't have left her—all alone teaching in that faraway school. It's all my fault! But I'm helpless in my wheel chair. How could I go to her? And I'm afraid—terribly afraid, I don't know what she'll do. But something tells me she'll go to Reedsburg. We used to talk about Reedsburg so much. John and I, when she was little more than a baby. So something tells me she'll go, blindly, to Reedsburg. Look out for her, Abner; be kind to her. If she doesn't come—oh, what can I do?"

The judge stopped. The dead stillness of the room was broken by a dry sob. At the sound Chet stepped down Lucy's side, helpless, agony in his eyes. His hand clumsily patted her bowed head. The judge blew his nose.

"Ex plaintiffs," he said turning again to Cyrus, "you sh'd know thet the girl came to Reedsburg—ex this here heartbroken mother thought mebbe she would. Happened I—thet is, the court, seen her when she got here. Happened she asked me—the court, I mean, where she might live. Couldn't jest think, right off, o' any right-thinkin' respectable family thet'd have her. No—couldn't jest think o' nobody in Reedsburg thet was hankerin' to take in this mother's little girl—an' be kind t' her. Thought mebbe Chet 'Worth might. Kinda thought mebbe Chet'd find room in his house fer her—quiet there an' out o' the way. An' kinda trusted Chet."



believed he'd be pretty good t' the
 and; p'rhaps 's good ez most any wom-
 I c'd think of jest then."
 He paused and turned abruptly.
 "Lucy," he said, not unkindly,
 "who's that baby's father?"
 Before she could answer Chet Worth
 us before the bench.
 "I am," he said tensely.
 Lucy's face blanched and the
 uckles showed white where her
 inds gripped the chair. But a great
 lppiness shone in her weary eyes.
 e judge adjusted his glasses.
 "Lucy—is that the truth?"
 "No, sir. He has lied," she said
 ry softly.
 "Thought so. Who, then—" the
 ge waited.
 "Hiram Wattles." Lucy's whisper
 unded through the hushed stillness.
 us staggered to his feet. His wife
 lowing him.
 "EH—what's that? What's that!
 ram—my boy Hiram? It's a lie. A
 ck lie!" His hands clawed at Lucy.
 "You—you—"
 "Jest a minute, Cyrus!" The judge's
 ice seemed to drawl softly, but
 smething in it instantly stilled the
 bbbub and checked even Cyrus' out-
 first.
 "Happen's I had a little 'vestigation
 ide—over'n Fern county, 'round the
 ringdale school house way. Friend
 mine uster be sheriff over there;
 g, two fisted sort o' man. Asked
 m to kind o' look into things. He
 n across your boy Hiram. Kind o'
 rsuaded him t' talk, I guess. Sent
 e this confession, a little while back.
 ebbe y' best read it, Cyrus—might
 nvince ye."
 The judge turned abruptly to Chet.
 s squinted over his glasses.
 "Chet," said the judge, "b'lieve you
 d sort o' be kind t' Lucy, after all
 fa? B'lieve mebbe y' c'd shelter 'n
 ject her a little mite longer?"
 "Yes, sir!"
 "Lucy, d' trust Chet, 'n believe in
 m?"
 "Oh, yes!"
 "Think mebbe you two c'd be sort
 contented 'n happy togeth—sort
 permanent?"
 "Yes," two voices responded simul-
 taneously.
 "Jest you two hold hands a minnit,"
 d the judge peered over his glasses.
 "Now, Chet an' Lucy, I perounce
 u man an' wife." There was a pe-
 pd of astonished stillness broken at
 st by the judge himself.
 "Guess mebbe tha'll clear you,
 et, o' any charge o' perjury in the
 utter o' that there baby. Guess
 bbe you got a plain right to be his
 d."
 The judge looked down at Lucy.
 e sank wearily into Chet's arms.
 lppy tears filled her eyes. The
 ge blew his nose.
 "Court's adjourned!" he said stern-



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(Continued from page 21)

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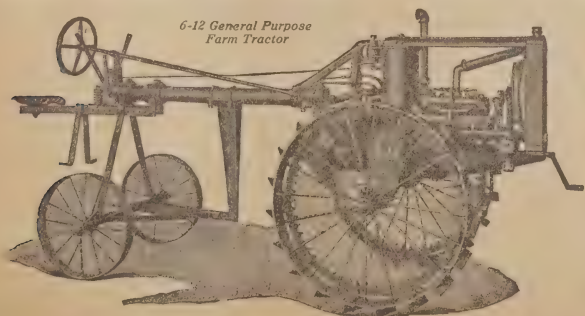
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THE NORTH WIND'S MALICE

(Continued from page 11)

my little girl, you understand? And now, all gone!" He tore his beard and the tears rolled down his cheeks.

The little man's grief was affecting, and so Folsom inquired more gently than he intended, "I'm sorry, of course, but how about my money for the Lulu assessment?"

"Money? There's your money!" Guth pointed sadly into the smoldering ruins. "Go find it—you're welcome to anything I have left. Gott! What a country! How can a man get ahead, with no insurance?"

Folsom laughed mirthlessly. His hard luck was becoming amusing and he wondered how long it would last. He had counted on that hundred dollars to get away from Nome, hoping to shake misfortune from his heels, but a match in the hands of a child like that broken propeller shaft, had worked havoc with his plans. Well, it was useless to cry.

To the despairing Hebrew he said: "Don't lose your grip, old man. Buck up and take another start. You have your wife and your little girl, at least, and you're the sort who makes good."

"You think so?" Guth looked up, grateful for the first word of encouragement he had heard.

"It's a cinch! Only don't lose your courage."

"I—I'll do what's right by you, Mr. Folsom," declared the other. "I'll deed you a half interest in the Lulu."

But Folsom shook his head. "I don't want it. There's nothing there except moss and muck and salmon berries, and it's a mile to bed-rock. No, you're welcome to my share; maybe you can sell the claim for enough to make a new start or to buy grub for the wife and the kid. I'll look for another job."

For a month or more the lonesome husband "stevedored," wrestling freight on the lighters, then he disappeared. He left secretly, in the night, for by now he had grown fanciful and he dared to hope that he could dodge his Nemesis. He turned up in Fairbanks, a thousand miles away, and straightway lost himself in the hills.

He had not covered his tracks, however, for bad luck followed him.

Now no man starves in Alaska, for there is always work for the able-bodied; but whatever Folsom turned his hand to failed, and by and by his courage went. He had been a man of consequence in Nome! he had made money and he had handled other men, therefore his sense of failure was the bitterer.

Meanwhile, somewhere in him there remained the ghost of his faith in Lois, the faintly flickering hope that some day they would come together again. It lay dormant in him, like an irreligious man's unacknowledged faith in God and a hereafter, but it, too, vanished when he read in a Seattle newspaper, already three months old, the announcement of his wife's divorce. He flinched when he read that it had been won on the grounds of desertion, and thereafter he shunned newspapers.

Spring found him broke, as usual. He had become bad company and men avoided him. It amused him grimly to learn that a new strike had been made in Nome, the biggest discovery in the camp's history, and to realize that he had fled just in time to miss the opportunity of profiting by it. He heard talk of a prehistoric sea-beach line, a streak of golden sands which paralleled the shore and lay hidden below the tundra mud. News came of overnight fortunes, of friends grown prosperous and mighty. Embittered anew, Folsom turned again to the wilderness, and he did not reappear until the summer was over. He came to town resolved to stay only long enough to buy bacon and beans, but he had lost his pocket calendar and arrived on a Sunday, when the stores were closed.

Even so little a thing as the loss of that calendar loomed big in the light of later events, for in walking the streets he encountered a friend but just arrived from the Behring coast.

The man recognized him, despite beard and his threadbare mackinac, and they had a drink together.

"I s'pose you heard about that Beach Line?" the new-comer inquired. Folsom nodded. "Well, they've opened it up for miles, and it's just a bonanza of solid gold." "Cap Carter's in it big, and so are the O'Brien boys at Old Man Hendricks. They're loaded with pay."

"I did the work on a tundra claim," said Folsom; "the Lulu—"

"The Lulu!" Folsom's friend stared at him. "Haven't you heard about the Lulu? My God! Where you've been anyhow? Why, the Lulu's a millionaire and he made all without turning a finger."

Folsom's grip on the bar-rail tightened until his knuckles were white. "I'm telling you right, old man; he's the luckiest Jew in the country. He let a lay to McCarthy and Olson, and they took out six hundred thousand dollars, after Christmas."

"Guth offered me a—half interest in the Lulu when his store burned and I turned it down. He's never paid for that assessment work."

The Nometite was speechless with amazement. "The son-of-a-gun!" said, finally. "Well, you can collect now. Say! That's what he means when he told me he wanted to see you. Guth was down to the boat when I left, and he says: 'If you see Folsom, river tell him to come back. I'll do something for him.' Those were his very words. That little Jew aims to pay you a rotten hundred so you won't sue him for an interest. By Gorry, I wouldn't take it! I'd go back and make him do the right thing. I'd sue him. I'd bust him in the nose! I'd half interest—in the Lulu! My God! The speaker gulped his drink hastily. After consideration, Folsom said: "He'll do the right thing. Guth is a bad sort."

"No. But he's a Jew; trust him to get his."

"I wouldn't ask him to do more than pay his debt. You see I refused to offer."

"What of that? I'd give it a try, anyhow, and see if he wouldn't settle. There's lots of lawyers would take your case. But say, that's the toughest tough-luck story I ever heard. You've sure got a jinx on you."

"I'm going back, but I won't sue Guth. I'm sick of Alaska; it's licked me. I'm going out to God's country."

Folsom indeed acknowledged himself beaten. The narrow margin which he had missed reward for his work and his hardships bred in him such hatred for Alaska that he abruptly changed his plans. He had no better perversity than his courage, and he exasperated him beyond all measure to recall what little things his wife had hinged upon, what straws he had turned his feet. A moment of pity with Lois, a broken piece of steel match, a momentary whim when Guth offered him payment. It was well that he did not know what part had been played by his quarrel with Harkness, that wet muk-luk, that vicious island dog, and the storekeeper's wager.

Folsom carried cord-wood to pay for a deck passage down river. He discovered en route that Guth had really tried to get in touch with him, and in fact appeared greatly concerned over his failure to do so, for at Tanana he received another message, and again at St. Michaels. He was grimly amused at the little Jew's craftiness, yet it sorely offended him to think that any one should consider him as a wretched. He had no intention of causing trouble, for he knew he had no legal claim against the fellow, and he doubted if he possessed even a moral right to share in the Lulu's riches. To play upon the Hebrew's fears, therefore, savored of extortion. Nevertheless, he was in no agreement of mind when he arrived at his destination and inquired for Guth.

The new-made millionaire was in a office; Folsom walked in unannounced.

had expected his arrival to create scene, and he was not disappointed. It Guth's actions were strange, they it the new arrival dazed, for the lit- man fell upon him with what ap- pared to be exuberant manifestations for.

"Mr. Folsom!" he cried. "You have me! You got my letters, eh? Well, wrote you everywhere, but I was in spair, for I thought you must be ad. Nobody knew what had become of you."

"I got your mesage in Fairbanks." "You heard about the Lulu, eh? At! She's a dandy."

"Yes, I can hardly believe it. So, you're rich. Well, I congratulate you, I now I can use that hundred."

Guth chuckled. "Ha! You will have your joke, eh? But the Lulu is no ice. Come, we will go to the bank; let them to tell you how much she yielded. You'll blame me for asking her, but how was I to know that she was."

"Why should I blame—" Folsom stared at the speaker. "It's none of my business what the Lulu has yielded. In fact, I'll sleep better if I can't know."

Little Guth paused and his mouth opened. After a moment he inquired, seriously: "Don't you understand?"

"ere was another pause, then he said, quietly, 'I'm a man of my word.' Folsom suddenly saw black, the arm began to spin, he passed his hand across his eyes. "Wait! Let's get this straight," he whispered.

"It is all very simple," Guth told him. "We are equal partners in the Lulu—we have been, ever since the day my store burned. It was a little thing you said to me then, but the day you said it, the fact that you didn't blame me, gave me new heart. If you think I'd renig?" When Folsom found no answer the other redded slowly. "I see. You probably said, 'That Guth is a Jew and I'll do me up if he can.' Well, I am Jewish, yes, and I am proud of it; but I am an honest man, too, like you."

Folsom turned to the wall and hid his face in the crook of his arm, but

with his other hand he groped for that of the Hebrew.

The story of the Lulu is history now; in all the north that mine is famous, for it made half a dozen fortunes. In a daze, half doubting the reality of things, Folsom watched a golden stream pour into his lap. All that winter and the next summer the Lulu yielded wondrously, but one of the partners was not happy, his thoughts being ever of the woman who had left him. Prosperity gave him courage, however, and when he discovered that Lois had not remarried he determined to press his luck as a gambler should.

When the second season's sluicing was over and the ground had frozen he went outside.

The day after he sailed Lois arrived in Nome, on the last boat. She was older, graver! she had heard of the Lulu, but it was not that which had brought her back. She had returned in spite of the Lulu to solve an aching mystery and to learn the why of things. Her husband's riches—she still considered him her husband—merely made the task more trying.

Advised that Folsom had passed almost within hailing distance of her, she pressed her lips together and took up her problem of living. The prospect of another lonely Alaskan winter frightened her, and yet because of the Lulu she could not return by the ship she had come on. Now that Folsom was a Cressus she could not follow him too closely—he might misunderstand. After all, she reflected, it mattered little to her where she lived.

Guth called at her cabin, but she managed to avoid seeing him, and somehow continued to avoid a meeting.

Late in December some travelers from Candy Creek, while breaking a short cut to the head of Crooked River, came upon an abandoned sled and its impedimenta. Snow and rain and summer sun had bleached its wood, its runners were red streaks of rust, its rawhide lashings had been eaten off, but snugly rolled inside the tar-

aulin was a sack of mail. This mail the travelers brought in with them, and the Nome newspapers, in commenting upon the find, reprinted the story of that tragic fight for life in the Arctic hurricane, now almost forgotten.

Folsom's three letters reached their destination on Christmas Day. They were stained and yellow and blurred in places, for they were three years old, but the woman read them with eyes wide and wondering, and with heart-beats pounding, for it seemed that dead lips spoke to her. Ten minutes later she was standing at Guth's door, and when he let her in she behaved like one demented. She had the letters hidden in her bosom, and she would not let him see them, but she managed to make known the meaning of her coming.

"You know him," she cried, hysterically. "You made him rich. You've lived alongside of him. Tell me then, has he—has he—changed? These letters are old. Does he still care, or—does he hate me, as he should?"

Guth smiled; he took her shaking hands in his, his voice was gentle. "No, no! He doesn't hate you. He has never mentioned your name to me, or to any one else, so far as I know, but his money hasn't satisfied him. He is sad, and he wants you. That is what took him to the States, I'm sure."

Lois sank into a chair, her face was white, her twisting fingers strained at each other. "I can't understand. I can't make head or tail of it," she moaned. "It seems that I wronged him, but see what ruin he has made for me! Why? Why?"

"Who can understand the 'why' of anything?" inquired the little Hebrew. "I've heard him curse the perversity of little things, and rave at what he called the 'malice of the north wind.' I didn't dare to ask him what he meant, but I knew he was thinking of the evil which had come between you two. Who was to blame, or what separated you, he never told me. Well, his bad luck has changed, and yours,

too; and I'm happy. Now then, the wireless. You can talk to him. Let us go."

An hour later a crackling message was hurled into the empty Christmas sky, a message that pulsed through the void, was relayed over ice and brine and drifted forests to a lonely, brooding man three thousand miles away.

The answer came rushing back:

"Thank God! Am starting north tomorrow. Love and a million kisses. Wait for me."

Folsom came. Neither ice nor snow, neither winter seas nor trackless wastes, could daunt him, for youth was in his heart and fire ran through his veins. North and west he came by a rimy little steamer, as fast as coal could drive her, then overland more than fifteen hundred miles. His record stands unbroken, and in villages from Katmai to the Kuskokwim the Indians tell of the tall white man with the team of fifteen huskies who raced through as if a demon were at his heels! how he bored headlong into the blizzards and braved January's fiercest rage; how his guides dropped and his dogs died in their collars. That was how Folsom came.

He was thin and brown, the marks of the frost were bitten deep into his flesh when, one evening in early March, he drove into Nome. He had covered sixty miles on the last day's run, and his team was staggering. He left the dogs in their harnesses, where they fell, and bounded through the high-banked streets to Lois's cabin.

"It was growing dark, a light gleamed from her window; Folsom glimpsed her moving about inside. He paused to rip the ice from his bearded lips, then he knocked softly, three times.

As he stood there a gentle north wind fanned him. It was deadly cold, but it was fresh and clean and vastly invigorating. There was no malice in it.

At his familiar signal he heard the clatter of a dish, dropped from nerveless fingers, he heard a startled voice cry out his name, then he pressed the latch and entered, smiling.

THE END.

A Tractor Story of the North Woods



IT was back in 1913 that Joseph Wargin, whose address is R. F. D. 1, Box 101, Duluth, Minnesota, bought his International tractor. And little did this tractor know when it was shipped from the great Harvester Tractor Works what lay in store for it, as the story-writers would say. It was ready to begin its life work—to help clear the farm tucked away in the pine forests of northeastern Minnesota, making a place for agriculture—and to thresh the thriving crops of neighboring farmers whose land had already been cleared. But tragedy, too, was waiting for this tractor. In speaking of his tractor Mr. Wargin said, in a letter received last spring:

"We bought our tractor in the year of 1913, and have used it ever since for six years. This tractor was a great help to us. Without it, we could not have improved our farm as we did, and every fall when it was threshing time we went out threshing for the farmers, as there was no other person that had an outfit like ours. Every year we made about \$700.00 in about three weeks, threshing for farmers in the neighborhood.

"When we had nothing else to do we pulled stumps and cleared our land with this tractor. The cost of repairs for it wasn't much until the great fire of October 12th, 1918, which swept through this part of the country and took everything."

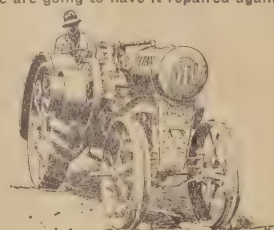
You remember that terrible forest fire! The whole country gasped as the flames swept through miles of tinder-dry forests, leaping roads and streams, licking up millions of dollars' worth of property, including the farmers' crops. Scores of people lost their lives—some were trapped by the flames in their homes and others burned to death while trying to escape through the forests.

This tractor was one of those that remained at home. It saw the fire advancing through the forest; saw Mr. Wargin and his family flee for their lives; saw the hungry flames consume the farm buildings—but let Mr. Wargin finish. He simply says:

"The tractor is in bad shape. It was standing alongside of our barn and was badly burned, but we are going to have it repaired again, because WE CAN'T BE WITHOUT IT."

Six years of faithful service—through the big fire—and ready for further service!

What better recommendation can any tractor receive?—"We can't be without it." Those five words express the unanimous opinion of thousands of farmers who have learned the value of International tractor power on the farm.



International Harvester kerosene Tractors are built for economical, long-time, efficient service. Made in three sizes—8-16, 10-20 and 15-30 h. p. May we send you descriptive pamphlet? Write to the nearest branch house listed below.



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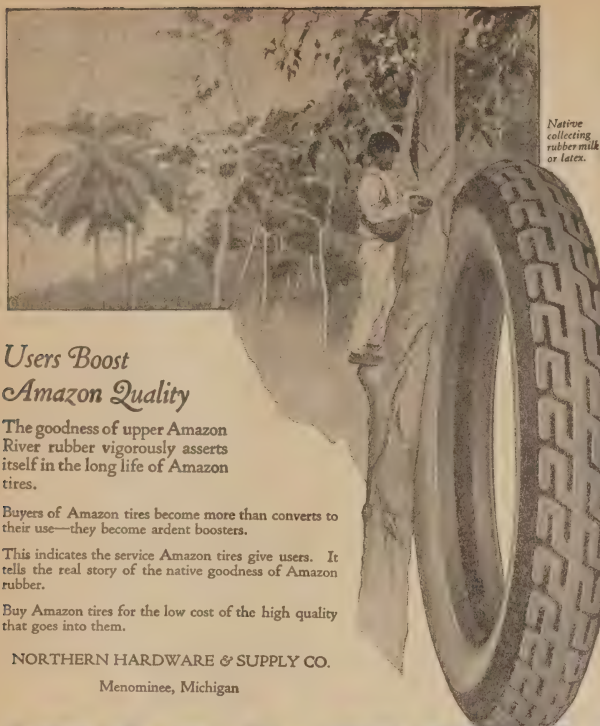
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POOLING WOOL

By H. R. BAKER

"SHALL Northern wools acquire a name for themselves on the market of the country or shall our fleeces continue to go, unannounced and in piece-meal fashion, into the wool buying channels?"

Wisconsin sheepmen, for several years, have been asking that question. Now they are finding the answer—it's co-operation.

Last spring a few communities prescribed pooling as the remedy for their ills. The results of the treatments were so satisfactory that they are recommending its use by the wool growers of the state.

The ills of Wisconsin's wool marketing methods as diagnosed by some of the leading flock-masters have been:

1. Producers have been uninformed concerning the grading of wool;
2. Little or no attention has been given to marketing methods, good and poor wool being "lumped" at the same price;
3. There has been a general lack of information concerning values of the different grades; and
4. A year's supply of wool has often been dumped into the hands of the speculator in one or two months.

Last spring, due to the suggestion of the Wisconsin Live Stock Breeders' Association and the Wisconsin Sheep Breeders' Association, several communities decided to pool their clips. Incidentally, they learned of the success of the pools which had been formed the year before in Iowa, Illinois and Ohio.

Two communities—one in Buffalo and the other in Dane County—lead Wisconsin in pooling their 1919 clip. Following are reports of these pools furnished respectively by James Dillon of Mondovi and W. F. Renk, of Sun Prairie:

DETAILED REPORT OF MONDOVI WOOL POOL				
Grades	Weight	Gross Price	Amount	
Fine and fine medium staple.....	237	\$.78	\$ 185.71	
Fine and fine medium clothing.....	181	.59	106.79	
Half blood staple.....	412	.73	300.76	
Half blood clothing.....	324	.63	204.12	
Three-eighths blood staple.....	4,573	.65	2,972.45	
One-fourth blood staple.....	4,871	.60	2,922.60	
Low one-fourth.....	371	.52	192.92	
Medium clothing.....	1,164	.61	710.04	
Medium black.....	84	.50	42.00	
Cotts.....	118	.40	47.20	
Dead.....	57	.48	27.36	
Damaged.....	57	.40	22.80	
Burry and seedy.....	6	.52	3.12	
Tags.....	65	.24	15.60	
	12,510		\$7,733.47	
Average per pound, 61 8/10 cents.				

DETAILED REPORT SUN PRAIRIE WOOL POOL				
Grades	Weight	Gross Price	Amount	
Fine and fine medium clothing.....	678	\$.55	\$ 372.90	
Half blood staple.....	864	.73	630.72	
Half blood clothing.....	222	.65	144.30	
Half blood clothing.....	15	.63	9.45	
Half blood clothing.....	157	.62	97.84	
Three-eighths blood staple.....	1,681	.60	1,008.60	
Three-eighths blood staple.....	603	.61	367.83	
Three-eighths blood staple.....	181	.65	117.65	
One-fourth blood staple.....	848	.61	517.28	
One-fourth blood staple.....	16	.60	9.60	
One-fourth blood staple.....	244	.52	126.88	
Medium clothing.....	743	.61	444.74	
Medium black.....	30	.50	15.00	
Dead.....	12	.48	5.76	
Burry and seedy.....	328	.52	170.56	
Tags.....	27	.24	6.48	
	6,679		\$4,066.69	
Average per pound, 60.9 cents.				

Similarly satisfactory reports have come from Ohio where 2,000,000 pounds were pooled; Iowa with 1,250,000, and Illinois with 500,000. This experience demonstrated to wool growers the fact that the wool of a state or region can be handled to advantage in a collective manner so that it may be graded into well-established commercial grades.

Experienced sheepmen in this and other states rate 1919 as one of the most significant years ever known in the marketing of wool grown in the "fleece" wool states. W. C. Coffey of the University of Illinois characterizes it as "a year of progress in marketing, a year of enlightenment concerning the conditions under which wool gets

from the sheep's back to a man's bay. It has been a year of vindication to a rapidly increasing number who believe that farmers' organizations can be instrumental in solving problems both local and national. And it has been very uncomfortable year for the old-time wool dealer who was accustomed to pay about the same price for every clip, irrespective of grade, quality or condition."

Mr. Coffey names two movements prominent in bringing about this progress. One has been the co-operative selling of wool by organizations, sheepmen who were moved to act because they felt that the conditions under which they were being forced to market their wool were intolerable. There have been such organizations in Canada, and scattering ones in Nebraska, Kentucky, Missouri, and elsewhere.

In Illinois, as in Wisconsin, pools were sent to a warehouse and storage company which handled the clips on commission of two and one-half cents a pound. "Each farmer's wool was graded and complete returns—weights, grade, shrinkage, and value—were sent to the county advisor of the county from which the pool came. Cases where a grower wanted an immediate advance of money for his wool 75 per cent of the estimated value, his clip was returned to him upon receipt of his wool at the warehouse as he was charged seven per cent on the money until his wool was sold. Storage charges were made for insurance and for shortage after the wool had been in the warehouse for four months." Experienced Illinois sheepmen were placed in the warehouse while pools from that state were being received and graded.

After a season's experience with wool pooling Mr. Coffey is convinced that "wool will never be satisfactorily marketed until the old-time dealer is entirely brushed aside and all clip sell on their merit in an open market."

"What the dealer wants is a low buying price and a high selling price, his best chance to realize his ambitions lies in the privilege of selling under conditions known only to himself and the man who buys of him."

In Wisconsin this all led to the holding at Madison in December of an informal conference called by the Division of Markets to discuss improvements in wool marketing methods. Those attending the conference represented the Wisconsin Sheep Breeders' Association, the Wisconsin Branch of the American Society of Equity, the Wisconsin Live Stock Breeders' Association, the Wisconsin State Grange, the county agents and the Farm Institute workers.

The men invited to this conference went over very carefully the Ohio, Iowa and Illinois plans which for the most part are identical. After a thorough discussion of the entire problem it was felt that there was a need for a single organization to work on the problem as it needed the backing of every sheep man in the state. With this in mind the following resolutions were adopted without a dissenting vote:

1. RESOLVED, that the members of this informal gathering recommend collection rather than the individual presentation of Wisconsin wools.

2. RESOLVED, that through the operation of the Wisconsin Sheep Breeders' Association, the Wisconsin Branch of the American Society of Equity, the Wisconsin State Grange, the Wisconsin Division of Markets and the Wisconsin Live Stock Breeders' Association, there be formed the Wisconsin Wool Growers' Association to direct the marketing of Wisconsin wools, each of the organizations being given representation on the Board of Directors of the Association.

3. RESOLVED, that the growers in wool-producing districts be urged to join existing agencies for pooling, or form themselves into community or district associations to assemble and ship their wools to a central point to be designated by the officers of the Wool Growers' Association.

4. RESOLVED, that the Division of

Markets be instructed to call a conference for the purpose of organizing at such time and at such place in the City of Madison as they may deem fit and that they also invite the wool men of the state to attend such meeting."

It was decided that each organization present should consult its board of directors to get its assent to the general plan of combining all of the forces of the state for the common end of getting a better marketing system for Wisconsin wools.

"A satisfactory market for wool," says W. F. Renk, secretary of the Wisconsin Sheep Breeders' Association, "is one of the greatest incentives for continued sheep production. Owners of small farm flocks producing a superior grade of wool are entitled to receive for their product the full market price less reasonable charges for grading, storing, insuring and selling. When, over a period of years, they do not receive such returns the tendency is for them to quit raising sheep."

"Too often in the past buyers visiting farm flock owners about corn planting time have purchased all of the wool of a community at the same price. Some fleeces are bound to be better than others. Some fleeces are from sheep which are better bred and have had better care. Some growers feed better and have no burrs in their fleeces. Some shearers know how to put up a fleece in good order. But too often quality in wool has had little to do with prices paid. And this marketing condition has retarded the sheep industry of Wisconsin."

"But there is light ahead. Early in the spring of 1919 reports that farmers were already selling their clips for prices much below the actual value of their wool suggested the possibility of 'pooling' shipments. The Wisconsin Live Stock Breeders' Association sent a representative to Chicago to visit the officials of the wool storage company, some of them owned and managed by wool growers. He secured from them their plan for handling pooled shipments, and this plan was laid before the sheepmen of the state."

"Briefly, the procedure was as follows: Individual shipments of wool were packed into carload lots as far as possible. Every farmer's wool was baled separately and sacks plainly marked. This was shipped to the Storage company who contracted to handle the wool upon its arrival, store, insure, grade, sell and ship out to the buyer or two and one-half cents a pound."

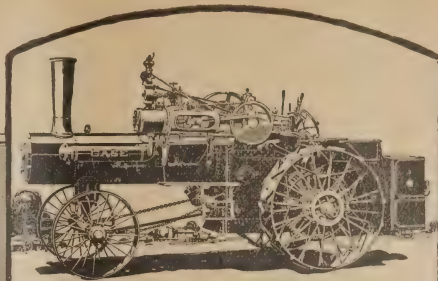
"Results were away above expectations. While only a few communities pooled their wool the prices received were so far above those offered by local buyers that the organization of some sort of machinery to spread this system of marketing all over the state was suggested."

"Accordingly, early in December, representatives of the Wisconsin Live Stock Breeders' Association, Wisconsin Sheep Breeders' Association, American Society of Equity, Wisconsin State Grange, the State Marketing Commission, and the College of Agriculture met to consider the pooling system of marketing Wisconsin wool and began the organization of the Wisconsin Wool Growers' Association."

"Wisconsin is a great sheep center. Its climate is ideal for the production of superior fleeces. Our sheepmen have a breeding stock. The introduction of co-operative marketing of our wool would result in making a still better time for our fleeces and the adoption of approved methods should cause the sheep population to rapidly increase. This is a farmers' movement. Every wool grower's support is necessary, in order that this very important industry will receive the impetus it deserves. Quality and quantity are the points to be emphasized. Every sheep raiser is asked to co-operate."

A CHAMPION BIDDY

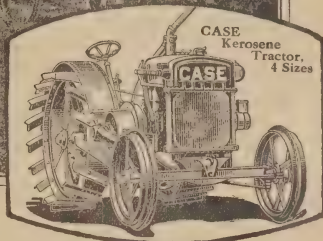
Mrs. Susan Warler, of Travis, Tex., aims to have the most profitable hen in the world. According to her records she has made a net profit of \$18.50 in the year on eggs and chickens sold. She has a cross between a Rhode Island Red and a White Leghorn. During the year she laid 103 eggs, and set 103 times, hatching 73 chickens of which number 62 were raised.



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THE SHEEP RANCH PROFITABLE



The Pasture Must Be Prepared by Piling the Brush, Burning and Seeding.

WHO ever ventures into the sheep business should have his eyes open.

That this industry can be made profitable is a sure thing, but do not for one minute think that you can bring in a train load of sheep—any kind of sheep—and dump them anywhere on a piece of cut-over land, and watch them double their weight. It simply doesn't work that way.

This is the story of a sheep ranch started by a company that used "horse sense" in the sheep business, and is making money. When "horse sense" is combined with good business judgment you have a combination hard to beat. This judgment consisted of buying good sheep on a good market, putting them on good pasture, and at the same time raising enough feed, and providing good shelter for the winter.

The sheep were purchased by a veteran sheep man, William Hagaboon, who has been uniformly successful in the sheep business. He found what he wanted at Billings, Mont.

Sixteen hundred and fifty strong, two year old ewes were purchased. The breeding was a cross of Ramboulett and Cotswold. These animals were shipped direct to Price County, Wis., and the good judgment of the buyer is shown by the fact that not a sheep was killed in transit or even down in the car at the end of the journey.

On reaching the ranch located at Lugerville, about ten miles from Phillips, the sheep were unloaded and they found—not a bunch of brush, but plenty of good pasture. The ranch consists of about 4,000 acres, of which 3,000 acres are fenced and cross fenced. Two seasons had been spent in preparing the ranch, burning and seeding to clover immediately, followed by men brushing and piling.

W. K. Parkinson, manager, said: "The growth of clover was so heavy that the 1,650 ewes could not make a dent in it. Next season this ranch will pasture several thousand more sheep, and we expect to offer pasturage to sheep men at a moderate rental.

"Pasturing upon cut-over land before first fencing and making reasonable preparations for feed by burning,

By H. J. RHAMLOW
County Agent, Price County, Wisconsin

seeding, and brushing is a mistake. Sheep men will make more profit, and may avoid calamity by pasturing on assured pasturage, properly fenced, than by turning the sheep into unprepared, cut-over land."

The sheep were pastured until the first of December, when they were rounded up and driven to the company's farm adjacent to the city of Phillips.

"What do you consider the essentials of good wintering?" Mr. Parkinson was asked.

"Plenty of good feed, and proper shelter. The shelter need not be warm but should be dry overhead and underfoot. Plenty of fresh air, sunlight, and water must be provided. I am a crank on sunlight and fresh air. Kindness and attention will add to the net profits.

"We never close the doors of the shed. The sheep instinctively go into shelter when necessary. We believe in giving plenty of room. Excepting in stormy weather they are fed in the open air."

The company firmly believes that sheep can be wintered profitably only after enough land has been cleared to raise the necessary feed. In this case sufficient clover hay, pea and oat hay, oats, both for grain and straw, corn and sunflower silage, and rutabagas were raised to take the sheep through the winter.

One important feature was noticed in the construction of the buildings. In a convenient place is a large room, warmly built, to be used as a living room by employees during lambing time, and as a combination work room and hospital. This room is well heated, and a water tank supplying all the drinking water troughs is enclosed in the room. This water is always at the right temperature for the sheep to drink freely.

Water is pumped into a tank by a gas engine. Both engine and pump are located in the heated room, a great convenience to the men in cold weather. A root cellar in which the ruta-

bagas are stored, is located under this room.

The most commendable feature of the whole proposition is that up to this writing, less than one-half of one per cent of the sheep had been lost. When the writer visited the winter quarters the latter part of January, not a cough was heard nor a sick ewe seen. The air about the barn was fresh and dry.

The building is in the shape of a square horseshoe, with a high board fence across the opening of the shoe. This makes an enclosed yard where the sheep are kept at night. From this yard doors lead into the barn which surrounds it, so that the sheep may go into shelter if they wish. On stormy days they are fed in this yard as well as in the barn.

After lambing the sheep will be transferred to the pasture ranch where they will have an abundance of summer feed.

"From my experience," said the manager, "there are great opportunities for profitable sheep raising in both large and small bands, if approached with the same degree of business judgment as is used in any other successful business venture. But it has its dangers and is not fool proof. One must not expect a band of sheep will do well on the average cut-over land, where no preparation has been made for suitable pasture, and without regard to the kind or quality of sheep. But large pastures may be developed from cutover lands with comparatively small expense. It is a question of allowing the sun to shine on the ground. This, however, must be done first. Sheep are very useful in clearing and establishing pasture, but they need man as a leader.

When the late Col. D. Burch, one of the highest authorities on sheep, wrote in his publication, the "American Sheep Breeder:" "This great district (Cloverland) forms as nearly an ideal sheep country as any the writer has seen in a quarter of a century of almost constant travel between the Great Lakes and the Snowy Ranges, and from Manitoba southward to middle Texas," he knew whereof he spoke.

FEEDING THE DAIRY COW

"DON'T go too fast in the business," was the advice given to a class of coming herdsmen by Axel Hansen, the man who made the world butterfat record with the Holstein cow, Duchess Skylark Ormsby.

"Feeding dairy cows, especially high producers, requires lots of personal experience and practical work," said Mr. Hansen. "To become a successful feeder one must first find the likes and dislikes of each cow before it is possible to know what to feed. The idea that cows must be very fat at the

time of freshening is wrong. A fat cow will be lazy and dainty about her eating and if she does go off her feed it will be a hard job to get her back again. If the cow is a little hungry at calving time and not overly fat, the danger of getting her off feed is not nearly so great nor is there so much danger from milk fever. Go slow with the grain for two or three days after calving; in the meantime feed mash and avoid protein feeds, for they will cause a rush of milk to the udder with the resulting danger of milk fever.

"Breed right to have cows freshen between Oct. 1 and April 1. Animals freshening during the heat of summer are feverish and nervous and never seem to get into such fine shape for big production as those calving in cool weather.

"If milk fever should attack the cow there is no need to worry about losing her. The chances for a big record are gone, but if proper treatment is given she will recover immediately. Do not attempt to give the air treatment until the cow is unconscious for she will work against it."

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A buyer who will always pay for your wool at the standard rate, and who will be interested in keeping your flock healthy and large.

Wool-weaving industries which will produce clothing near-at-home at the lowest prices, and thus help you as well as your farm.

We have been pioneers in work of this sort for the Cloverland region, and in buying our product you are not only getting full value in woolen clothing—you are enriching your farm and enlarging your prospects.

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GROW SOYBEANS!

By GEORGE M. BRIGGS

SOYBEANS increase the farmer's supply of rich protein feed and add fertility to the fields upon which they are grown. Farmers have planted them a number of seasons with satisfactory returns. What practical farmers have found by experience and what has been demonstrated in the station experiments will aid farmers who are extending the planting of this profitable crop.

Here are ten good reasons why farmers in many sections of Wisconsin, Michigan and Minnesota should try a limited acreage of soybeans:

1. A majority of farmers in these states are having good success with them.
2. Soybeans are just a common crop for common people. It is not necessary to have a soil free from acid for good yields.
3. The best annual legume for medium to light soil is the soybean. It yields best on fertile soils, yet yields on light soils where other legumes fail to catch.
4. It is an annual plant—sureness of crop is a certainty.
5. The soybean is the dual purpose member of the legumes—an annual used as a green manure, silage, hay, seed and pasture crop.
6. In feeding trials soybean hay is equal to alfalfa.
7. Soybeans take no more moisture when planted with corn than do weeds and the leaves make rich silage. The labor of caring for soys with corn is no greater than for corn alone.
8. Properly cured the crop is relished by all stock.
9. Soybeans are easy to grow, as they are not attacked by any serious diseases.
10. Being a legume, the soybean builds up soil by adding nitrogen.

There is a place for everything, including soybeans. These are suggestions which help in putting the crop in its place:

1. On light soil where clover kills out, causing a shortage of leguminous hay, grow soybeans; yield depends on fertility of soil. Yields of 1 to 1½ tons an acre can be expected.
2. If the regular hay crop is light, cut early, plow and plant soybeans.
3. If you are a dairy or beef farmer, to get the most out of your stock plant soybeans with your corn for silage. Protein content of silage is increased; therefore less high-protein feed will have to be purchased and greater profits result.
4. If you are a sheep or hog farmer, to get the most from your farm business, plant a medium-maturing variety of soybeans with your corn for hogging-down or sheeping-off. Good results are being realized by farmers who follow this practice.
5. If you are feeding corn fodder to livestock, plant soybeans with corn. Cut and shock with corn and in favorable years with the right variety of soybeans excellent results will be realized.
6. When potatoes fail to grow large enough to be sold, when land is so poor that white beans won't grow, and you must have some cash crop, plant soybeans.
7. If you raise field peas for canning factory, after first cutting, plant soybeans. Plowed under in late summer they add a large amount of fertility.
8. If you have some drift sand on your farm, plant soybeans and plow them under.

Wisconsin farmers and station workers who have had experience with soy-

beans recommend that they be planted about corn-planting time or a little later. Like corn, soybeans do best in warm weather.

How to Plant Soybeans

Planting depends largely upon the use which is to be made of the crop. Here are good methods of planting:

1. For seed, ½ to 1½ bushels is required for an acre, depending upon the method.
 - (a) Drill in rows by pairs from 2 to 4 inches apart in the row, leaving cultivating space between rows; plant by corn-planter or grain-drill with some holes stopped up; seed ¾ to 1½ bushels to the acre.
 - (b) Grain drill or broadcast recommended only on clean soil. A few farmers report success by planting with drill, leaving every other spout open and dropping beans 2 to 5 inches apart. Seed ¾ to 1½ bushels to the acre.
 - (c) Corn-planter at regular width or narrowed up; ½ bushel seeding.
 - (d) Corn-planter at regular width, then straddle rows; seed ¾ to 1 bushel to the acre.
 2. For hay, plant same as for seed (possibly thicker), seeding ½ to 1½ bushel an acre.
 3. For silage, or hogging-off with corn, one bushel soybeans will plant 8 to 12 acres with corn, depending on size of bean and thickness of planting.
 - (a) Use corn-planter. Use large plates so as to drop corn at regular rate and soybeans extra. Mix 2-3 corn and 1-3 soybeans and keep stirring.
 - (b) Use separate attachment on corn-planter.
 - (c) After planting corn, go over same rows with corn-planter and plant beans.
 - (d) If field is marked off in squares, use a small hand-planter. Some farmers report best success planting between hills, 3 or 4 beans to a hill, after the first cultivation of corn. Most farmers, however, plant in the hills.
 - (e) If corn is drilled in, use hand-planter to plant soybeans in same rows.
 - (f) Some farmers prefer planting corn by the usual method, planting soybeans in a separate piece, to be cut at time of silo filling.
- The soybean crop is put to three main uses—seed, hay, and silage. The methods of caring for the crop are:
1. When soybeans are planted for seed:
 - (a) Cultivate with cultivator or weeder if planted in rows.
 - (b) If broadcasted, no special care is needed till harvest time. Harvest the same as in rows.
 - (c) Cut with bean harvester. This method has been tried out on a small scale in Wisconsin with only fair success. Or,
 - (d) Cut with mower with side delivery, or let man follow mower with fork. Or,
 - (e) Cut with scythe. Or,
 - (f) Cut with grain binder before too ripe. This method is all right where varieties grow tall enough. Shock and care for same as any other grain crop.
 - (g) Cutting with old-fashioned reaper is recommended by some farmers. Many leaves are saved by this method.
 - (h) To cure, let dry in swath for a short time, put in small bunches till dry, then stack and thresh later. Or,
 - (i) Thresh direct from small bunches with bean thresher or threshing machine which is run by experienced bean thresher man. Some farmers report best success threshing after cold weather sets in.
 2. When soybeans are grown for hay:

- (a) Cultivate with cultivator or
seder.
- (b) Cut at any time after pods form
and before stems get too woody and
before leaves turn yellow and drop.
- (c) Cut with mower after dew is off,
using side attachment; let dry in
bath for short time; then put in small
bunches. Water seems to bother less
than in clover curing. If weather is
d it may take some time to cure.
Turn part of bunch up few hours be-
fore hauling. If weather continues
dry bad it may be necessary to stack
bunches with alternate layers of dry hay
and straw. As with clover, the less
matted the better.
- (d) Planted with corn which is to
be used as dry stover, few farmers re-
port excellent success with the soy-
bean. Cut and shock with corn.

3. Where soybeans are used for
silage:

- (a) If with corn, no extra steps be-
sides the regular care of corn are nec-
essary.
- (b) If planted separately for silage,
cut at time corn is cut for silage. Put
both corn and silage into silo at rate of two loads
of corn to one of soys. Every third
load can be soys, or haul a load up to
the silo, then occasionally put some
rough the ensilage cutter with the
corn. No set rule for mixing. Use
the easiest method.

As with every other crop, there are
certain things to be avoided in soy-
bean production. Here are specific
warnings:

1. Don't plant any seed which is of
 doubtful germination. Test before
planting.
2. Don't plant too deep; in heavy
soils not over one inch and on light
soils slightly deeper. If weather
should continue cold and damp poor re-
sults follow.
3. Don't plant too early; cold
weather will give poor results.
4. Don't give up if you fail. Re-
member, you have to get acquainted
with this crop.
5. Don't fail to inoculate. Liquid
inoculation can be secured from the
Experiment Station at cost. Good re-
sults can be secured from inoculating
with soybean soil.
6. Don't plant the wrong variety.
For seed Wisconsin No. 8 or Wis-
consin No. 25 corn will mature,
plant Early Black. In localities where
Ever King or Golden Glow corn ma-
tures, plant Ito San or Manchu. Other
varieties that will mature are Early
Black, Black Eyebrow, Medium Early
Green, Early Brown, Medium Early
Glow. For hay or silage fast-growing
varieties such as Ito San, Manchu,
Medium Early Green and Early Brown
are proving very satisfactory. Mam-
moth Yellow and Black Beauties have
proved successful in some localities.
7. Don't fail to be a booster if you
have good success. Pass your soybean
information along to your neighbor.
8. Don't fail to get Northern-grown
seed if possible. Make your plans early
in the year. See your county agent.
9. While many farmers report favor-
able results from planting soybeans
with corn as silage, this method is
still in the experimental stage. On
medium light soils more favorable re-
sults are reported from planting soy-
beans on corn than on heavy soils.
Just why unfavorable results are ob-
tained in some localities is yet unde-
termined. Poor germination, depth,
time of planting, and variety used
are factors which have to be dealt
with in solving this problem.

"Silage has been found to be par-
ticularly well adapted to the feeding
of dairy cattle, but it is not a com-
plete feed because of its bulk, its high
moisture content and its lack of pro-
tein and mineral matter. In combina-
tion with silage one should feed some
alfalfa or clover hay and in addition
a well balanced grain ration," says R.
J. Canan, dairy specialist at Purdue
University.



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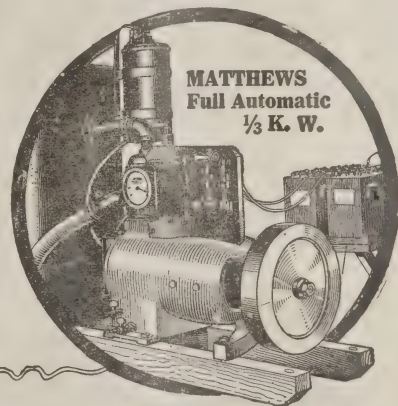
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FARMING MARSH SOIL

By A. R. WHITSON and H. W. ULLSPERGER

FIVE factors determine largely whether or not it will pay to drain and farm marsh land. These are: (1) the cost of thorough drainage, (2) the cost of clearing and breaking, (3) the chemical composition of the soil, (4) the danger of frost during the growing season, and (5) whether the farm is all marsh or partly upland.

Thorough drainage usually costs from \$20 to \$35 an acre. Clearing and breaking cost between \$5 and \$25 an acre, depending largely on whether the marsh is open or timbered.

Marsh lands vary greatly in their chemical composition—some need only to be drained to grow good crops while others require special treatment.

Marsh soils are subject to frost, which lessens their adaptability to corn and potatoes in the central part of the state and prohibits success with these crops in the northern countries.

When a farm is all or nearly all marsh it is imperative to drain thoroughly a portion of it, if not the entire acreage. On many farms having comparatively small marsh areas drainage is often overlooked because there is sufficient upland to meet the cropping needs and the marsh is left as pasture. Whenever the returns of such pasture lands are carefully considered, it becomes plain that they would prove much more profitable if made to grow "tame" crops of high feeding value rather than wild grasses of low feeding value.

In the southern part of the state it will pay, as a rule, to drain all mucks and shallow peats having clay subsoils. Well-decomposed peats underlain by clay are much better than raw peats. Raw peats underlain by sand are of less agricultural value.

In managing marsh soils four important factors must be considered: (1) drainage, (2) preparation of the seed bed, (3) use of manure and other fertilizers, and (4) selection of the proper crops.

The first step in the development of any marsh land is to drain it. In case of extensive areas large main ditches requiring the use of a dredge must be dug. For this purpose it is necessary that land owners co-operate by or-

ganizing a drainage district or by having the county drainage board take charge of the work. In case of smaller areas it frequently can be done by mutual agreement between two or three adjoining owners.

Sometimes the construction of ditches around the edge of a marsh tract will reduce the wetness of the marsh so that crops can be grown without further ditching. Where the offending water is seepage a deep rather than a large drain is necessary and in such cases tile are cheaper than open ditches. These open drains carry away the water from the surrounding higher land, and thus prevent it from reaching the marsh. Usually both ditches and tile are necessary on the marsh itself.

When the surface soil is peat, muck three feet or less in depth, underlain by sand, small open ditches eight rods apart will sometimes give sufficient drainage for most crops. Even when the subsoil is clay the laterals must not be more than six rods apart and in some cases less, to give thorough drainage. Under these conditions tile should always be used since they give better drainage than open ditches. Another advantage of tile is that they are covered so that they do not interfere with the preparation of the land. In cases where the peat or muck is three and a half feet or more in depth, tile should be used and should be placed quite deep—four, three and one-half to four and one-half feet. This is done for two reasons: the settling of the surface will bring the tile too near the top of the ground, and a wider strip of land can be drained by each line of tile.

The use of tile makes it possible to do away with open ditches, and make the land easier to cultivate. Because muck and peat lands usually shrink and settle considerably when drained, it is often desirable to use open ditches for three or four years. The may, in some instances, be left as surface drains, or they may be filled when new ditches for the tile are dug beside them. Experienced drainage men usually prefer digging open ditches to cleaning out old ditches for the purpose of laying tile in them.

Generally drainage is of the greatest service in a marsh in the spring, since at that time the free water in the cultivated soil needs to be removed by deep drainage to allow the roots of crops to go deep into the soil and become well established.

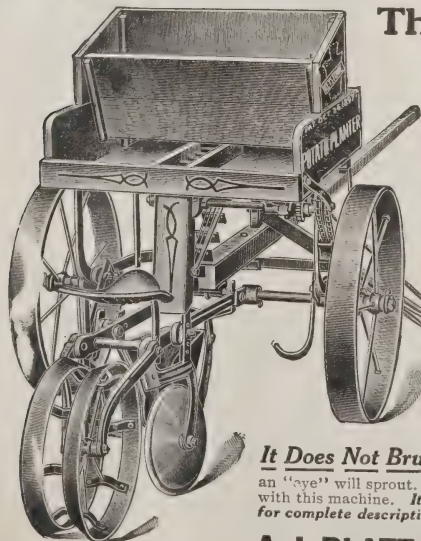
Sometimes during dry summer crops planted on poorly drained marshes actually suffer for want of water. This condition leads many to infer that drainage has been harmful. The real fact is that when crops are planted on poorly drained marshes the roots establish themselves in the surface area, which soon dries out during a dry period. Strangely enough, the lowering of the water table during wet spring actually increases the amount of water available to the plants later in the season. This is due to the fact that the early drainage develops a deep root system.

In most drainage districts only the outlet ditches have been put in and these are paid for by the sale of bonds, which constitute a lien on the land and must be paid during the following fifteen or twenty years. Complete drainage must be installed later by the owner. The man who is thinking of purchasing land in a drainage district, therefore, should determine the full cost of its complete drainage as well as its state of fertility and crop adaptation.

Clearing and Preparation of Seed Bed

The native growth of trees on marsh lands must be removed. Ordinarily their shallow root systems make the clearing very simple. There are, of course, considerable areas, especially in the northern portion of the state, on which there is a very deep growth of sphagnum moss. Other marshes sup-

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very growths of grass. It is usually difficult or impossible to plow such areas properly before this growth has been removed. The easiest way to remove deep roots and thick grass growth is to burn it. Ordinarily it is not considered desirable to burn marshes more than once absolutely necessary, but in some cases it cannot be avoided. There is much less objection to burning on marsh lands than on uplands, provided only as much of the surface is burned as is necessary to permit of soil breaking. Indeed, the ash from a shallow surface burning increases greatly the productivity of these lands for the first few years. Where the soil has considerable depth and on peaty marshes, burning is possible only during a dry season. In the hot summer months great care must be taken to prevent the spread of the fire.

The summer and early fall are the best times for the plowing, whether burning is necessary or not. Where the soil is mucky a good stubble plow is generally best used with success. Where the soil is peaty, however, a mold breaking plow with very long and board must be used, and the driver the plow the more successfully the furrow-slice be turned. On marsh lands a tractor is usually better for power than are horses. The weight of such a plow helps in compacting of the peaty soils doubtless hastens its rotting, hastens the necessary chemical decomposition to establish fertility, and greatly improves the soil. Often a disk plow does excellent work after the first breaking. This, of course, must not be understood as meaning that marshlands which are merely wet clay soils and contain considerable well-decomposed organic matter should be compacted in this way. When these soils are too compact and "tight" as is often the case, they should be plowed with a moldboard plow and left undisturbed after drainage and plowing (if plowed in the fall) so as to allow the action of the frost to produce the granulation necessary to good tilth.

During the following spring the peat or muck breaking should be harrowed three or four times with a cutaway or a disk harrow to secure a good seed bed. Nearly all grain should be planted with a drill about two or three inches deep, in order to secure a good supply of moisture. Small seeds such as clover and timothy, which cannot go their way through much soil, should be planted about one and one-half inches deep. The compacting of the surface soil even after seeding is very important in case of small seeds.

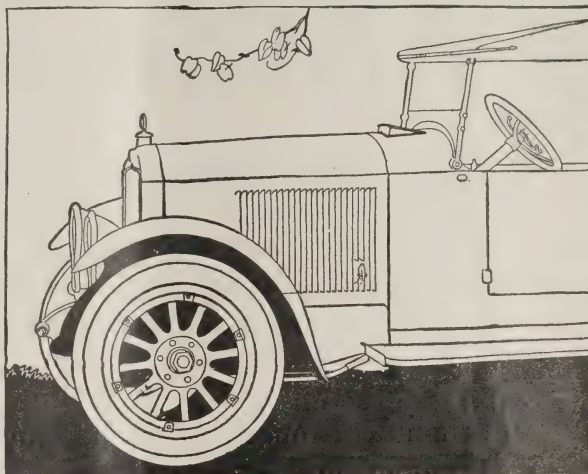
When the original sod has been completely decomposed through cultivation and cropping, peats and mucks usually become very loose. It should be remembered that looseness or mellowness is not the only condition indicating a favorable seed bed. Aside from having a certain degree of mellowness, a good seed bed should have a certain degree of firmness or compactness as well. Thus, when a peat or muck becomes too loose, it should be rolled, even before planting. Rolling after planting is also recommended.

marsh soils are to continue in their present state of productivity, more thorough and better methods of cultivation must be practiced. A small tract of marsh land properly managed and filled will give a larger net return for the amount of money expended than a larger acreage poorly cultivated.

In order that we may understand clearly the fertilizer needs of marsh soils it is necessary that we discriminate between the different soils included in the term "marsh soils," and that we know their physical and chemical characteristics. Three distinct types of marsh soils are recognized—peat, muck and "marsh-border soils."

Peat is a soil high in organic matter, usually running from 75 to 95 per cent, but occasionally as low as 50 per cent. The difference between the per cent of organic matter and 100 per cent indicates the amount of silty or earthy material in the soil. The

(Continued on page 51)



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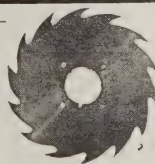
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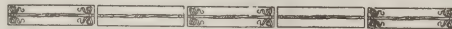
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By A. C. SMITH

Professor of Poultry Husbandry
University of Minnesota Farms

IVE sharp, dry sand as soon as hatched. Feed the healthy ones thirty-six hours after hatching, and the weak ones twelve hours later.

First Period

For two or three days, feeds may be of a combination of the following: (1) eggs, (2) stale bread, (3) stale bread crumbs, (4) sweet milk, (5) pinhead or steel-cut oatmeal, dry; (6) finely cracked corn, dry; (7) a good commercial chick-feed, dry. Feed frequently and often, and keep chicks active. Feed chick-feed, or finely cracked corn in a fine, dry, light, litter, until one week old. If stale bread, cracker crumbs, milk (sweet or sour) are used, feed occasionally for variety. Add greens from the start; short grass on the sod is best, if not on grass. Out of season or if confined, feed cabbage, lettuce, mangels, fresh bean clippings, apples, or clipped ends of sprouted grains.

Dry Mashes — Gradually accustom the young chick to dry mash. Underwatered bran should be the base of all mash. Begin by dropping a little of the chick will eat in five minutes on a board, or in a shallow dish. The amount may be increased gradually. Enough to satisfy the appetite of the chick should be given, because the will in that case be no way to compel it to exercise sufficiently.

Second Period

(Two to six or eight weeks of age).

RAIN AND SEEDS — Only the sweetest and soundest grains are fit for the young stock. Any moldy, bin-burnt, or tainted feeds will result in losses. Cracked corn and whole grain are among the only grains commonly raised on the farm that are suitable for chicks. Grains with sharp, tough hulls are not suitable. If grain is not allowed, cracked corn becomes the staple. For variety use commercial chick feed of larger size than for the first period or hulled oats.

DRY MASHES — These should be provided and are essential to the best conditions of health and most rapid growth. They may consist of corn-meal or hominy, bran, middlings, sifted finely ground oats, 5 per cent by weight of sweet, clean beef scraps, 10 per cent of bone-meal for lighter breeds and 5 per cent for the larger breeds. Supply clean water and milk products at all times. Double the proportion of beef scraps, if milk or buttermilk products are not available.

Third Period

(Eight weeks to Maturity).

This is the period of cheapest production. Economy should be practiced in both labor and feeds.

FREE RANGE — Both grains and dry mash should be fed in hope. Grains: Cracked corn or commercial scratch feed. Mash: Bran, flat middlings, corn-meal or hominy ground oats, equal parts by weight. One-half pound of salt to 100 pounds of mash; 5% by weight of bone-meal; 5% to 10% by weight of beef scraps. Milk in any form is a good substitute for beef scraps. Rapid growth is desired, feed beef scraps in a separate hopper or box. A constant supply of both milk and dry scraps tends to rapid growth. If fields make excellent feeding ground for chicks, but feed in hope as directed; otherwise weight will be acquired slowly.

CONFINED QUARTERS increase the amount of work required to raise chicks. If attempted, the care differs from that of range chicks, in that

greens and animal foods must be provided, and chicks compelled to exercise. If too closely confined, it is almost impossible to grow chicks at a profit, even with the most constant and faithful care.

ARTIFICIAL REARING — Chicks in brooders should be kept very warm. Do not govern the temperature by the thermometer, but by watching your chicks. Are they comfortable? If so, they will spread out when resting like hens on a warm day, but if cold they will huddle together closely. If very cold, they will huddle so closely that some will be smothered. Keep the brooder so warm that some of the chicks remain outside at night, or at least show their heads.

WHITE DIARRHEA — Much of the so-called white diarrhea would not occur if brooders were kept sufficiently warm at all times, and suitable foods were supplied by proper methods. That is, in most cases, if chicks are properly cared for, white diarrhea is avoided.

NATURAL REARING — With this method most deaths are caused by allowing the chicks in wet grass, usually early in the morning. Coops should be made so that chicks can be shut in until the ground is dry. Chicken coops should be large enough so that the hen may be comfortable. Uncomfortable coops irritate the hens, and losses of chickens result. When built without floor, they should be moved often for sanitary reasons, and should always be placed on high ground so that rain water does not run in. There is danger from drowning unless a little higher than the surrounding ground.

LOCATION OF CHICKEN COOPS — Place the coop in a spot which is reached by the earliest rays of the sun, never in the shade. Provide shade, but let the chicks seek at their pleasure. Chicks are more healthy when coops are placed in the sun.

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The art work of nature, Indian legend, and panoramic scenes that have made history in time of war and in time of peace all blend in harmonious welcome to tourists entering Cloverland through the southeast gateway, or bid adieu to the traveler after a sojourn at the wonderful Mackinac Island.

The island is justly famed for its scenery. The heights command views of sea and shore, ever changing with the varying lights and shades of the hours and the movements of passing ships. Well kept roads—thirty miles of them—lead in various directions from the village, through the woods, amid curious rock formations, now along the edge of the bluff with vistas of the lake, and again to some open outlook, whence the panorama is bounded only by the limitations of vision. There are gleams and ravines innumerable; open spaces which were the ancient gardens of the Indians; and delectable parks, whose clumps of shrubs and trees are so effectively arranged that one at first thought credits the artistic effect to the skill of the landscape artist rather than to the caprice of nature.

WRITE OR WIRE FOR RESERVATIONS

GRAND HOTEL COMPANY

MACKINAC ISLAND, MICH.

LOGAN BALLARD, President CHARLES A. HOLDEN, General Manager



Conducted by A. N. WALLACE

FOR the sportsman who loves to follow the baying hound, on the track of fox, coon or rabbit; or he who prefers to hunt the marshes and creeks in search of wily old mallards, should at this time give serious thought and study to the purchase and training of the dog that will be needed next season.

Using a good dog and a well trained dog is half of the fun in hunting. How many of us have gone through season after season without a dog, or have used such dogs as we can buy on short notice; and, not being acquainted with the dog or his ways, we did not know how to handle him and get the best results—often returning him as unsatisfactory? In some cases, no doubt, the dog was not adapted to our style of hunting. This is especially true of dogs bought from southern kennels and tried out in the northern states, where climatic conditions are so different.

Every sportsman that really wants a good dog to shoot over for a number of seasons, must, in order to train him, buy the dog when he's a pup—then train him in the way he should go, and teach him the way he should hunt.

This is the time to begin the training. The pup should be from four to six months old. I prefer one of this age because it will make him about a year old when the season opens next fall. As soon as he's found, begin training him. First he must be housebroken; then he must be taught to mind and at the same time not to be afraid. Then he must be taught to know, and love, the sound of a gun so that he will not be gunshy. This is mighty important. Many young dogs learn to hunt but never hear the report of a gun. And then they are spoiled for all time when the first shot is fired. They just naturally beat it!

SO AGAIN I say, this is the time to begin, if you want a good dog next season—one that will hunt in your way, or that will prove why you should hunt his way.

The training of a hound or bird dog, (a retriever) is one of life's really interesting adventures. Personally I prefer to handle hounds and the large field type of cocker spaniel. We have not used fox and coon dogs in recent years—mostly because there haven't been any foxes or coons to hunt. Recently I've seen signs of these two animals—more this winter than in a number of years. I've been almost tempted to train a dog to hunt them. I told Bill about it. He just said: "You let the fox and coon alone for a few years. Then maybe we'll have enough of 'em around here again to make hunting worth while. Train a dog now, and go out with him next season, an' every pot hunter in these parts 'll get himself a dog, an' enough trained hounds 'll be imported to provide a pack for every fox an' coon in the state."

So I dropped the idea right away. Bill is about right. He always plays strong for a square deal for the wild things.

But about that dog—some of us hunt the open fields and woods for rabbits. We will, of course, want a hound of some kind. Others hunt the marshes and creeks and want a retriever. There are a lot of breeds to choose from. It is my belief that the sportsman that wants a good rabbit dog can not do better than choose a pup from a good hunting strain of the beagles. Beagles for rabbits every time, is what the owner of a beagle will say. Some prefer the larger type of hound and have good reasons for so doing—but in all of the years that I have hunted, I find that the man that owns a beagle always brings home his share of game.

FOR MARSH and creek hunting a retriever is needed. It is hard to advise on breed; there are so many of this type and all of them are good if properly trained, but one is far better off without a retriever than with one that is not staunch and true and ready to obey the slightest command.

The most popular breeds hereabout are the Irish water spaniel, cocker spaniel, Chesapeake Bay and airedale. I have never owned or shot over the last two breeds but know that the spaniels are both very easy to train as retrievers, and will work over well even when they are quite young.

The best way to teach a spaniel pup to fetch things is to give him a rubber ball to play with. Begin by rolling it about the floor and getting him to fetch it back to you. Then throw it out in the grass, where he has to hunt for it. Later take him to some pond or stream and get him to fetch the ball from the water.

I remember the first dog that trained as a retriever. He always had a rubber ball to play with. The first thing he would do when I came home was to bring his ball and place it at my feet. One thing I taught him was never to give the ball to anyone but myself. Later, when I used him in hunting, he followed this course with birds. The first season that I worked this dog, I started out one stormy afternoon for a marsh that was full of wild rice and rushes, also having a small pond nearly in the center. The rushes and rice were so tall it was a most impossible to find a bird unless it fell into the open water. On arriving at this pond I found several shooters already there. They all reported having killed several ducks but were unable to find them.

I TOOK up a position about twenty rods in the rear of the rest—I'm no any too fond of shooting at close quarters with gunners who are stranger to me. I had just nicely gotten located when three old greenheads came without even circling. They had their wings all bowed, ready to light in the pond ahead of me. I waited until they were right over me, and then cut loose with the pump. I got 'em all. The fell between me and the pond. The dog was off after the first duck the moment I fired. He brought in each of the birds and again started in the same direction. I just waited. I about five minutes he came back with a big black mallard hen and it sure was a beauty. That dog made four more trips, and each time he came back with a duck. So I had a real, undeserved bag when he got through!

It just shows the need of a retriever. I don't know who killed those ducks but I do know that they never would have found them—and neither would I if it hadn't been for the dog.

Think of what a slaughter of birds would be saved each year if more hunters were able to get all of the birds that they knock down in such marshes as this one. Hunters often say that they never find one-half of the birds they bring down; and these same hunters always come home with a good killing—often with the limit.

So make up your mind what breed of dog you want and buy it—paying a fair price and getting something that is good. Then spend your spare time in teaching him to do the things you want him to do. Next fall, when the season opens, you will be ready and also be repaid many times for the pains you have taken in making him your style of dog.

The Lure of Cloverland's Forests & Streams

BEFORE the snow is off the ground bluebirds get back from the South. It is usually not long before the martins follow them. Often you will see these birds perched on a limb or wire, still ice-covered.

At about the same time wrens begin to appear. You hear them some morning bubbling over with a song that begins suddenly, like an alarm clock, and runs as impetuously.

These birds—martins, wrens, and bluebirds—are an asset to the farmer and to the country, but are not always appreciated. All of them are insect eaters. Bluebirds, particularly, prefer to live in orchards. There they will destroy thousands of larva and insects that no spray can ever reach. Martins take their food on the wing. They live almost exclusively on insects, and it is said that they prey particularly on mosquitoes. Wrens scout around through brush piles and into nooks, and seek out the insects that are hidden away there.

These three birds have, in common, a habit of living in holes. That is, in their natural state they find hollow trees and build their nests within them. Under our more or less artificial conditions, they live in birdhouses or bird-boxes. This makes it easily possible to acquire them as regular spring neighbors.

Every boy can make a bird house but will suit the needs of these feathered friends. He will get a lot of pleasure out of watching the family life of these birds, and he also will acquire, in them, something of real benefit to the farm.

A BLUEBIRD house should be built for a single pair of birds. The house should be fairly deep, and the entrance should be about one and one-fourth inches in diameter.

Martins, of course, live in colonies. Any number of families will use the same house. Each expects its own compartment, but beyond that wants company. Martin houses, therefore, should have at least two tiers, and here can be from four to ten compartments in each tier. The entrance should be at least one and three-fourth inches in diameter, since the martin is a large bird. These birds will use a house placed within a few feet of a human residence. Therefore it is possible to have a colony of martins in the back yard or on the front lawn. The house should be eighteen feet from the ground, and may be as much bigger as desired. It is said that a martin house placed on a telegraph pole proved very successful. Eighteen or twenty-five feet is a better height, and it is easier to observe the birds. On the first page of this issue of the magazine a typical martin house is illustrated.

Wren houses are the simplest to construct. The entrance should be the exact size of a quarter—that is exactly one inch in diameter. The wren is very small, and this small entrance insures her against attacks by sparrows and other larger birds.

AN UNNECESSARY LOSS

One of the principal reasons for the high price of leather and everything made from leather is the great loss from imperfect hides.

Branding and barbed wire fences are the cause of many imperfections, but probably the greatest source of loss are the injuries caused by grubs and ticks during the life of the animal. Ticky hides make leather of low grade, while grub holes limit the area of sound leather obtained and the uses to which it can be put. Yet it costs as much to tan and finish as leather from good hides.

If we are to attract birds to the farm, we ought to protect them. The foremost and worst enemy bird life has is the ordinary household cat. This statement won't bear any kind of qualification. Every cat hunts birds. There is no use fooling ourselves about that. There is no use claiming that the old family cat is well fed, and is always around the house and never would think of bird hunting.

Edward H. Forbush, of the Massachusetts State Board of Agriculture, spent long years in studying birds, and incidentally kept an accurate record of their destruction, by cats. He is very conservative and yet he finds that the mature cat kills on the average of fifty birds a year. A. C. Dyke informed Mr. Forbush that his family owned a cat which was well cared for, and a particular pet. They watched it through one season and found that it killed fifty-eight birds, including the young in five nests. Nearly a hundred correspondents, scattered through the counties of Massachusetts reported to Mr. Forbush that the cat is one of the greatest of bird enemies. Mr. Forbush says:

"The number of birds killed by cats in this state is appalling. There are two cats to each farm in Massachusetts. We have in round numbers seventy thousand cats, killing seven hundred thousand birds annually."

M. R. FORBUSH, of course, points out that on some farms there are no cats; on others, however, there are a great many more than two—in one instance he found thirteen.

So if we want birds around our farms the first thing we have got to do is to kill off the cats. The two went mix. Just about the time we get interested in a bird family the old cat comes along and wipes out that family.

We generally think of birds as particularly attractive to children. Mr. Forbush suggests that they do a lot for older folks as well. He says:

"Possibly the greatest boon that the study of birds can confer upon man is seen in the power of the bird lover to keep his spirit young. Years roll on, youth passes, the homes and woods of our childhood disappear; the head becomes bowed with sorrow, and frosted with the snows of time; the strong hand trembles, the friends of youth pass away. But with each returning spring the old familiar bird songs of our childhood come back to us, still unchanged by the passing years. The birds turn back for us the flight of time. Their voices are voices from our vanished youth."

"Let us then teach our children to love and protect the birds, that these familiar friends of their childhood may remain to cheer them with song and beauty when, toward the sunset of life, the shadows grow long upon the pathway."

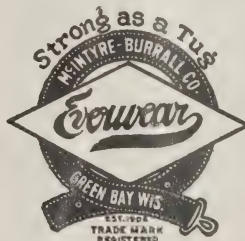
When it is fully recognized by cattle men that a creosote dip will eradicate these parasites at a cost of a few cents a head, there will be little excuse for adding this needless expense to leather manufacture.

An automobile or a good driving horse is a sound farm investment—not because either of them are worth much in the field, but because they are a means whereby the men, women, and children of the farms can get together.



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Of course, you do not want the service CLOVERLAND MAGAZINE is giving you interrupted, so it is a matter of double importance to you to watch for the expiration date of your subscription.

You already have noted the many new features and departments that were added to

CLOVERLAND MAGAZINE with the first of the year. These are only slight indications of what the Magazine will be in the future, as the publishers are sparing no expense to make CLOVERLAND MAGAZINE the equal to any published, no matter how big or how expensive.

We have been fortunate in clubbing with five national magazines, each covering a particular field of vital importance to every resident of Cloverland, and we are able to make you some decidedly attractive offers in clubbing rates on renewals if you **ACT AT ONCE**.

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No. 1.	American Poultry Journal, 6 months, \$5.50	Our price for the three	\$1.75
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Please mention briefly what you like about Cloverland Magazine:

FARM ANIMALS

(Continued from page 13)

not be too tight at the top as this may pinch the withers. They should be so adjusted that the tugs are in proper position (just above the point of the shoulder). This permits the maximum amount of unrestricted movement.

For the grown horse a good leather collar is probably the best. Pads become sweat-soaked and dirty and thereby cause sore shoulders. However, if you have a sore shouldered horse the stuffing can be removed from the pad over the sore place and, with proper care, the horse can be worked while the sore is healing. A pad that fills out a poorly fitting collar and makes a better fit is beneficial. Examine the horse's shoulders frequently during the spring work and thoroughly clean and wash every night with clean water. Plain salt water or a wash made from oak bark and water can be used with good results. The inside of the collar also should be cleaned every night and if pads are used they should be thoroughly dried. By observing these precautions you will avoid a good deal of "grief", not only for your horse but also for yourself, and you will find that you can do not only more work with your animals but that they will remain in better condition.

Azoturia

Azoturia—commonly called black water, or Monday morning sickness—is a disease that usually attacks well fed horses that are accustomed to regular work and then have been idle for a few days with no reduction in their grain ration.

The trouble comes on suddenly soon after leaving the stable, or at least within a few hours, and is characterized by a sudden weakness of the hind quarters and a stiff, staggering gait accompanied by profuse perspiration. Some times when the first symptom is noticed and the animal is stopped at once, it will not go down; but more often the horse goes down, and although attempting to rise, and even getting back on its feet, it cannot stay up for any length of time. The horse should immediately be freed from the harness; it should be blanketed well, and kept quiet. It may be removed on a well bedded stove-boat, to a comfortable box stall. Never attempt, after noticing the symptoms, to drive or walk him to a stable.

After getting the animal comfortably housed, call a veterinarian at once.

Although this disease is quite common and generally fatal it is easily prevented by reducing the grain ration and providing daily exercise while the horse is idle. Follow this simple rule and the only cases of azoturia you will see will be your neighbor's.

Water Your Horses

Every one of us knows how "blamed road" a drink of clear cold water tastes at times. Undoubtedly our horses feel exactly the same way about it. Unfortunately we do not always give them the necessary drink when they most need it.

A good plan to follow when working your horses is to water them whenever you take a drink yourself. Many armers work the horses in the field from morning until night, watering only at noon. In the meantime these same farmers probably take several and perhaps many drinks. During both the forenoon and afternoon the horses probably are just as thirsty and perhaps more urgently in need of water than the men who are working with them.

Lack of water during these working periods causes the animals distress and often results in drinking to excess at noon and in the evening, when they finally are given the opportunity. Water should be taken to the field for horses especially during the hot weather. It is good business as well as humane.

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NOTE.—When ordering sights direct from us, always mention make, model and calibre of rifle they are intended to fit.

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No. 5—Special Shear Sight for Winchester 1894 Cartridges. \$1.65.

No. 6—Marble's Duplex Sight. Combines "fine and coarse" sights in one. Makes snapshots, sure shots. The 1-8 in. white enameled bead folds down when the 1-16 in. gold bead is being used. \$1.65.

No. 6A—Marble's Duplex Sight showing enameled bead in use.

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MARBLE ARMS & MFG. CO. 562 Delta Ave., Gladstone, Mich.

Cloverland Magazine: Last spring soon after turning my herd out to pasture I lost two nice cows from bloat. It is hard for me to get prompt veterinary service. Can you advise me how to avoid this trouble, or what treatment can be given if I have more cases?

H. J. Pine Island, Minn.

The cause of bloat or acute indigestion is due to taking large amounts of food, especially those mouldy or musty, drinking large quantities of cold water, and probably the most frequent cause is clover that is wet or covered with dew or frost. Avoid excess feeding, water often, or better still, let the animals have access to water all the time. When first turning them into pastures do so after they have been fed in the stable, and

after the clover fields have dried off. Do not allow the animals to pasture for too long a time at first. Provide plenty of salt. Now if you get a case of bloat it may be so severe that you will not have time to telephone for a veterinarian. The animal will be bloated especially on the left side. Tap this swelling with the fingers and it sounds like a drum. The animal shows great distress, breathing is frequent and quick and the animal begins to stagger. When you find an animal in this condition it needs prompt attention if you are going to save its life. Tap with a sharp knife at the fullest point on the left side, pointing the knife blade forward and downward. Turn it slightly to allow

escape of the gases and insert a hollow tube or quill to allow subsequently formed gas to escape. Recovery is generally rapid.

I had trouble in my dairy herd, some cows having indigestion and colic, and two have aborted. I am feeding silage, mixed timothy and clover hay, and some grain. The silage seems a little moldy. What do you think is the cause?

Hurley, Wis. R. F. D.

If a balanced ration is fed and proper care is being given your herd, undoubtedly the moldy silage is the cause of the trouble. We advise that you stop feeding it for a week or ten days and note results. Give the cattle plenty of water and salt them well to induce drinking.



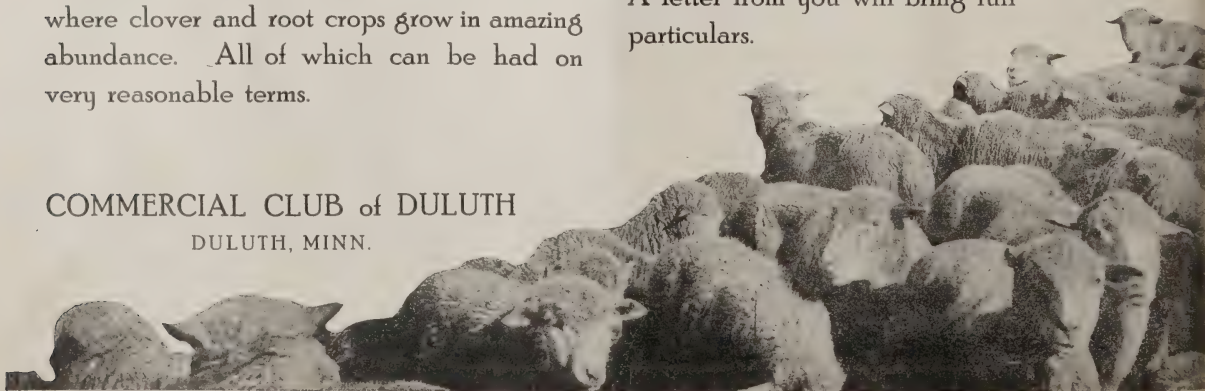
*"There's where
I'm going in the Spring"*

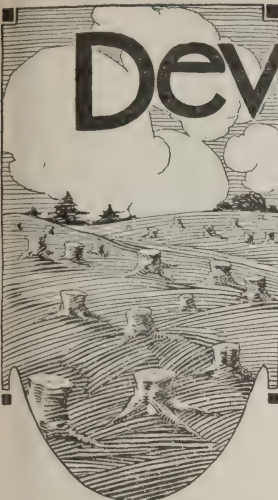
Perhaps you, like our friend Bill, for various reasons find it necessary to seek a new location in order to continue profitably in the cattle or sheep business. Why not come to Minnesota where large unbroken clear watered range lands are yet to be had? And where clover and root crops grow in amazing abundance. All of which can be had on very reasonable terms.

Thousands of Western sheep were shipped to these lands last year, arriving in pitifully thin condition on account of the drought. Yet when shipped on to market, sixty days later brought top prices.

A letter from you will bring full particulars.

COMMERCIAL CLUB of DULUTH
DULUTH, MINN.





Development Section

"Of the Cloverland Magazine"

Along the northern rim of the Great Lakes Basin—across the states of Michigan, Minnesota and Wisconsin—there is a great belt of undeveloped land.

A few years ago it was considered worthless—just stump land, no longer good for lumbering, and therefore useless. Today this area is recognized as the greatest frontier America has yet offered her people.

Clover is indigenous—therefore this country has been called "Cloverland"; but every other crop, native to the north-temperate zone, and every form of live stock, has been made to thrive in this new country.

Today there are many settlers, many fine farms, many thriving towns, and wonderful cattle and sheep ranches. There is room, on some 30,000,000 acres, for thousands of additional men and women, some of whom will surely achieve unusual success, and perhaps fortunes.

The Magazine is convinced that the Cloverland country has more real opportunities for farmer, rancher and business man than any other section of the United States today. But these opportunities must be carefully and soundly handled.

On the following pages you will find articles relating to this great cut-over country, known as "Cloverland." They are written by men who already live in the country, and who know it. The Magazine does not assume responsibility for all of the views or expressions included in these articles, recognizing that sometimes as individual experiences though truthfully set forth, may not be applicable to every other similar situation. However, the Magazine accepts statements only from men of standing and responsibility and believes, therefore, that the following pages fairly reflect the conditions and probabilities of the North Country—"Cloverland."

THE COST OF CUT-OVER LAND

Some Men Can Buy for a Dollar and a Half; Others
Need Real Money—It Depends on Man and Method

HUNDREDS of letters come annually, each asking the same set of questions:

"How can I acquire a farm?"

"What is land selling at in the cut-over country?"

"How much cash must I pay?"

"How much time can I have on the place?"

"Where ought I to locate?"

"What is the nature of the soil?"

The sales methods employed by the land owners in the three states—Michigan, Wisconsin and Minnesota—answer most of these inquiries.

These methods differ widely. A few men sell farms for cash. More require a cash payment—perhaps one-third down—and the balance after a period of years. Many offer their lands on the most liberal terms.

One of these owners, whose company is engaged in logging operations on both the Lower and Upper Michigan Peninsulas, says:

"We have no worries about our land. The average man going onto a piece of cut-over land needs all the money he has for tools, to put up a back, and to make improvements; or we let him keep his money as working capital. We require only \$25 or \$50 as earnest money.

"We don't bother about a piece of land after it is sold on this basis. Experience has taught us that these men pay the interest and their installments some time.

We never crowd them and no land has ever been returned to the company. There have been cases where a man has gotten several years behind, but usually, instead of throwing up his contract, he sold it out to somebody else and the new purchaser took up the payments where he left off. Sometimes the buyers pay off everything within a few years. Others stretch their payments over a longer period.

"We are satisfied to dispose of our land in this way because it is then off our hands. We have no taxes to pay on the land and we can't lose anything. Should the purchaser

insist on throwing back a piece of land we would be ahead, because the land would come back with some improvements on it—more valuable than when we first sold it. In the meantime we have saved the taxes and drawn interest on the purchase price. We consider this enough. But this has never happened in all the years we have been operating.

"The other day I received a letter from a bank in Southern Michigan asking how much was due on an 80 we had sold a long time ago. I found that the buyer had paid neither interest nor installments in twelve years. He owed us \$200 on the principal and the interest amounted to \$225. 'I wrote the bank and by return mail received the check for the full amount. The banker said that he wanted to close the deal because the farmer was making a loan of \$1,800—which the bank was glad to make as soon as the title had changed. The banker said this man could have had \$3,000 if he had asked for it. You see, he went ahead with his improvements instead of paying us. He now has a fine house, barn, outbuildings and a

cleared farm. But we got our money out of it and we are satisfied.

This method of land selling cannot be called typical of all operations in the cut-over district. However, a considerable group of owners look upon the problem in about that way. They feel that they cannot lose, and recognize that the incoming settler must not be deprived of his money.

An owner located in one of the large cities in the Great Lakes Basin provides in his contracts for "no payments down and no payments of principal or interest for a period of five years."

This owner, however, fixes an increasing value upon his property. That is, if the settler makes no payment of any kind for the full period of five years, the price per acre will be, say, \$50; if the settler elects to begin paying after four years the price will be \$45; if he elects to begin paying after three years, \$40; and so on down to the man who makes a full cash payment. In his case the price might be as low as \$25 or even \$20. In other words, this land owner gives the settler the benefit of long time cred-

it, but makes him pay for the privilege.

There is nothing wrong with this plan and it gives many a settler a chance to get started. It may, in fact, be one of the most satisfactory land buying arrangements from a settler's viewpoint. It has the merit of being business-like, and being all down in black and white before the settler begins to develop his land.

Several companies reverse the method of aiding settlers. Instead of asking the settler to keep his money and make improvements with it, the owners make the improvements but take the money. In other words, these companies supply the land, clear from two to ten acres, build a house and a barn, and then require a cash payment of from \$200 to \$500. At least one such company gives even more; in addition to the house and barn, it supplies a cow, a horse, a small flock of chickens, a brood sow and some tools. The settler who buys from this company gets a "made to order" farm. After he has made his first payment—which is something like \$500—he doesn't need much except the clothes on his back to start farming. He moves his family and furniture into the house and begins plowing.

There are certain great advantages in such an arrangement. It makes possible immediate production. That is, the settler who is able to make a \$500 cash payment starts out with a cow that produces milk, with a horse that produces work, with tools that produce cultivation, and with a limited number of acres that begin producing crops from the very start.

The man who buys wild land without improvement of any kind naturally can not produce anything to speak of during the first year. Nor can he produce a very large crop during the second year. Therefore, although he makes no cash payment, he usually must use his cash to feed himself and carry himself through this first year and part

(Continued on page 50)



A DEPENDABLE RANGE

is the goal of every stockman. With a dependable range he feels sure of success and secure against future adversity. A tract of select, cut-over land in Cloverland offers stockmen this opportunity.

Tracts to Suit Needs

We have several choice ranges among our holdings which we will sell to practical stockmen on terms that will be to his advantage.

CONSOLIDATED LUMBER CO.

MANISTIQUE, MICHIGAN

"In the Heart of Cloverland"

The Keweenaw Land Association Ltd.

— OFFERS —

Cutover Lands

in Chippewa, Dickinson, Iron, Gogebic, Ontonagon and Houghton Counties in the Upper Peninsula of Michigan in tracts to suit

Clay loam, sandy clay loam, sand loam and sand soils at \$5.00 to \$15.00 per acre.

Generally well watered.

J.M. LONGYEAR, Agent, Marquette, Mich.

D. S. DEAN, Treas., 87 Milk St., Boston, Mass.



Brush and Stumps. Piled and Ready for Burning.

LAND CLEARING

How It's Done, the Cost per Acre, and the Experiences of Men Who Have Successfully Gone Through the Mill

By J. W. WESTON

Assistant County Agent Leader, State of Michigan

POTATOES are now selling at \$2.10 a bushel at the loading station. One acre of good hardwood land will produce on an average of 150 bushels of potatoes per acre. Figure the potatoes at \$1 per bushel; this is \$150 gross income per acre.

At the Upper Peninsula Experiment Station at Chatham, in 1917, a five-acre tract was cleared and the exact cost determined. The total cost per acre of removing stumps and plowing was \$19.08 per acre. In addition to this \$18 per acre was expended to put the ground in shape to use farm machinery with safety. Add to this the increased cost of man and horse labor at \$8 per day for man and team, and the cost would total \$45 an acre.

The cost of growing an acre of potatoes as determined by the U. S. Department of Agriculture, takes a man 9½ days of 10 hours each and a team 9½ days of 10 hours each to do the work. This would make a total cost of \$76 an acre. Add to this the cost of clearing the land, \$45 an acre, and we would have a total cost of \$126 an acre. In return we receive \$150 for the potatoes, that would leave us a net profit of \$24 per acre.

Let us value this land in stumps at \$25 an acre. Add to it the cost of clearing, \$45 per acre, or a total of \$70 an acre invested. If the land would sell for this amount or more add that to the profit secured from the potatoes and you have the net return for the investment in clearing the land. After the land is once cleared you are through with that expense and the other crops that will follow in the years to come would not be charged with the cost of clearing.

Now, then, charge 6 per cent for your investment, 4 per cent for taxes,

and 10 per cent for overseeing the job, a total of 20 per cent overhead \$70 plus 20 per cent, equals \$14. Subtracting this from the \$24 you still have a profit of \$10 per acre and have paid for everything and you have your land cleared.

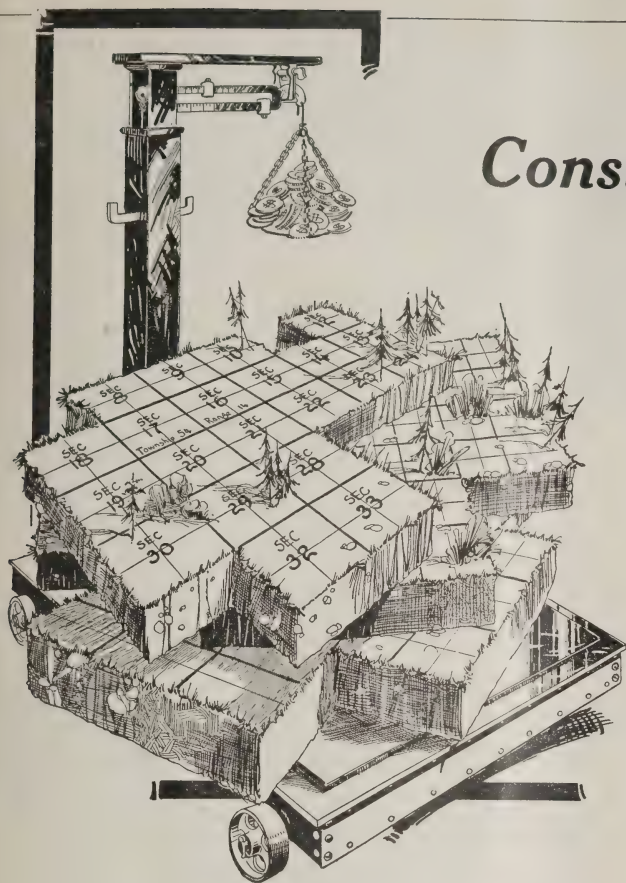
Several stages of development have passed before we reach this phase of land clearing. The waste and small growth is first disposed of, or brushed and burned. It then remains in stumps a few years, until the smaller stumps have decayed, during which time it is pastured. In the final stage of which we speak, the stumps are removed. It is estimated that hardwood stumps decay so that they can easily be removed within ten years after logging.

Generally brush is cut in the late fall or early spring. It should be cut close to the ground by a right and left hand stroke of the axe so as not to have sharp points on the stubs that might injure stock. The brush should be piled compactly and if piled in windrows run the windrows so that the sun will strike both sides of the pile sometime during the day and it line with the prevailing winds. Burning should be done at a time of the year when there is the least danger of spreading and in most cases the worthless logs and loose stumps should be burned at the same time. After this work has been completed it should be seeded lightly. One is now warranted in spending over \$2 an acre for grass seed. It is recommended that a seeding of two pounds of alsike, two pounds of June clover and four pounds of timothy be seeded but on account of the cost of the seed and the fact that red clover is a biennial and very expensive, that the



The Wild Land as the Settler Finds It.

Consideration No. 3



*Weighing
the
Evidence*

Northern Minnesota Climate and Ranching

"YOUR OFFER of trial on the land with my sheep or cattle without charge is fair enough, but how about the winter months?" asks a Wyoming rancher.

Our Answer is just this: You will feed hay, perhaps a little more than you are accustomed to. But why not, you win at marketing time. Does it mean anything to have your sheep strong and in condition in the spring? And in the fall put your stock on to the market in eighteen hours after leaving the pasture? Practically no shrinkage. Your shipping shrinkage loss will buy a lot of hay. Then besides the increased value of your lands will make a handsome profit. Write for the booklet giving the records of our climate for the past thirty years.

CLOQUET LUMBER CO. NORTHERN LUMBER CO.
JOHNSON-WENTWORTH LUMBER CO. Cloquet, Minn.



These companies were the first to bring cattle to its cut-over lands, and carry on profitable and successful grazing in Cloverland.

WE offer the western grazers their choice of 75,000 acres of cut-over lands in Cloverland; 25,000 in Northern Michigan; 50,000 in Florence and Forest Counties, Wisconsin.

Several ranches were selected and taken over last year by well-known western cattle and sheep men.

Write us for particulars or come and see these lands for yourselves.

J.W. WELLS LUMBER CO.
MENOMINEE, MICH.

GIRARD LUMBER CO.

J. W. Wells, President

DUNBAR, WIS.

MENOMINEE, MICH.

(Continued from page 44)

seeding be made of alsike and timothy. After one or two years of reseeding, it will furnish excellent pasture and possibly hay in the open areas. Timothy can be sown in the fall but it is better to sow the clover early in the spring, just as the snow disappears and as the frost leaves the ground. It is then worked in so as to secure a good covering. As the weeds and sprouts are kept under control native grasses such as June grass (Kentucky Blue Grass and Canadian Blue Grass) establish themselves even if no seeding has ever been done.

Where this method has been followed, that of brushing, burning and seeding, then pasturing for several years by sheep or cattle, sheep being preferable the first two or three years, the green brush is entirely killed out, the roots and trunks of the hardwoods well rotted, and the cost of clearing then has been reduced to a minimum.

It is often necessary for the new settler without any clearing to go ahead and clear several acres to provide some winter feed for his stock and vegetables for the family. Plowing between the stumps for cultivated crops is all right in the case of the new settler, but the practice is labor and money wasted if followed up for any length of time. The new settler can afford to borrow money and plans

have been made by some banks and special organizations to help this pioneer make this investment.

It is demonstrated that it pays clear land if money is available for the undertaking. Some people are advocating a State Aid Clearing Act; the State furnishing the credit.

The Federal Land Bank of St. Paul, Minnesota, will accept application for loans where the applicant has become well enough established to insure an income from his farm sufficient to support his family, improve his farm gradually and meet the payments on his loans. To meet the requirements it is held that there should be a small but comfortable house and at least one barn. There should be about ten acres or more under cultivation with fifteen or more acres of fenced pasture land, a few cows, a hog or two, and some poultry.

Wisconsin has a State Land Mortgage Law that gives a chance for land development. The difficult period of development is when the beginner has too little land open to offer his plan as security for a loan. Under the State Land Mortgage Law he can borrow with a credit of 20-30 years, for payment of his land. Interest and principal is the rate of payment, leasing his earnings and making possible to obtain loans not exceeding 55 per cent of the value of his farm. He proceeds with the development.



WE are keenly interested in the development of the agricultural and grazing opportunities of Cloverland.

What helps any part of this Empire of the North helps it all.

Calumet & Hecla Mining Company

JAMES MacNAUGHTON

Vice-president and General Manager

CALUMET

MICHIGAN



Northern Minnesota Is Your Opportunity

If you have energy without capital you can succeed. What others have done you can do.

If you have energy and capital to add you can succeed more quickly upon the capital invested in Northern Minnesota than anywhere else.

Dairying and Clover

Natural advantages make the Lake Superior district the coming dairy section of the world. The dairy business has made remarkable growth in Northern Minnesota during the last ten years.

Greater Cloverland is an appropriate title. Clover creeps everywhere, it is a weed of wonderful value.

Grasses grow luxuriantly. The grazing season is weeks longer than anywhere else, longer than further north, longer than further south, the lake does it.

The 1918 Grand Champion Guernsey cow of ten shows, including the Waterloo Dairy Cattle Congress and the National Dairy Show, is a part of one of the several nationally famous dairy herds of Northern Minnesota. The picture above is that of the Island Farm, the home of the nationally known Guernsey herd, including Imp. Bella II du Grand Fort, the 1918 champion Guernsey, owned by G. G. Hartley, of Duluth.

The products of the dairy always command good prices and particularly so in this section. Later the dairyman may make cheese, but at present he cannot afford to disregard the local market for milk and cream.

It is conceded that the opportunities afforded the dairyman are more certain in Northern Minnesota than any other line of agriculture, when everything is considered, soil, climate, crops and above all clover. Come and be convinced.

Potatoes and Root Crops

Potatoes are the settler's first crop. Under ordinary conditions potatoes yield 200 bushels to the acre. During the past year, exhibiting at all competitive shows in the Central West, St. Louis County took 125 prizes as against 113 prizes awarded to all competitors.

All manner of root crops grow in amazing abundance, making market gardening on small tracts close to the consuming markets of the cities a highly profitable and interesting occupation.

Sheep and Cattle Grazing

45,000 head of sheep in bands ranging from 1,000 to 13,000 in size were shipped onto Northern Minnesota lands last year. The great amount of natural feed, present everywhere, the large yield of clover running as high as five tons to the acre, and the ability to acquire large areas of good land at low prices is causing the Western grazer to look to these lands for the continuation of his industry.

Why You Are Interested

The country is adaptable to several classes of people, who for various reasons are desirous of making a change. First, the renter who finds the purchase of lands in older settled communities impossible and yet is anxious to secure a home of his own. He wants the rise in value of the land that has made his landlord wealthy. Second, the farm owner, who finding the high price of his land has made it practically impossible to secure more than a very meager net return on his investment, has sold his farm and now seeks a new location. Third, the immigrant who is looking for a new home. Fourth, the office man who sees nothing ahead but his salary and who is among the great multitude who want to break into business for themselves. Nowhere can this class of people accomplish more with their money. Fifth, is a great class of people who are overworked or unemployed who will find here a means of securing a living and rapidly develop into land owners. If you would like to know more about these lands, write

F. D. SHERMAN, Commissioner of Immigration : State Capitol, St. Paul, Minn.



Attractive Opportunities

*To buy cut-over range
and
agricultural lands*

from an old, reliable lumber company at prices and on terms which are most attractive at this time, when

GREATER CLOVERLAND

is finishing a year of great success in sheep and cattle grazing on cut-over lands, and a year of unprecedented sale of and location on new farming locations in what Frank J. Hagenbarth says is "the greatest agricultural and live stock section in the United States, if not in the world."



For full information address

SAWYER-GOODMAN CO.

MARINETTE, WISCONSIN

Or

GEORGE H. HEDQUIST, Supt.

GOODMAN LUMBER CO.

GOODMAN, WISCONSIN

Ed's Farm in the Cut-Over Country

(Continued from page 9)

whole 160 is cleared.

"I have yet to see the cut-over land that would not grow profitable crops. Personally I haven't had much trouble in maturing corn. They say it won't grow in these parts. I find it will, during most seasons, if I get a northern variety and get my seed from the right people. And if it didn't that wouldn't discourage me any. There are lots of things on a farm besides corn. When I get my silo up I'll try sunflowers, instead of corn. Then, too, oats and peas grow well and small grains certainly mature nicely.

"Watch the exhibits provided by any of the Northern counties in Michigan, Wisconsin or Minnesota and see for yourself what these counties can really harvest.

"I would not advise men to try farming on cut-over land without some capital. I don't think that my own start was necessarily a good one, in this matter of capital. Three hundred dollars is a mighty small sum with

which to begin a business. Farming on cut-over land—or anywhere else—is a business. Five hundred dollars, or a thousand, is a lot better. A man can well use two or three thousand and feel a little easier as he goes along. On the other hand, if a man understands farming, knows how to work hard and make the best use of his time, \$300 is enough—and of course there are fellows who could begin with \$1.25 and make a success of it.

"I do not advise 'baching it.' I had enough of that during my first two years up here. One of two things is sure to happen: either a man takes proper care of himself and feeds himself right, and thereby loses a lot of valuable working time; or he skimps his meals, becomes slovenly around his shack and undermines his health—and there's no sense in trying to carve a farm out of the wilderness when you are more than half sick.

NEW LIFE

(Continued from page 5)

fence post yonder. An' we sewed up the wounds ez slick ez you please with darning cotton. She come through fine, 'an' never cost us a cent. No sense in these veterinary fellers if you're a little handy yourself!"

Yes, they will come through sometimes—in spite of the treatment rather than because of it. But a valuable horse or cow is worth the four or five dollars that may be spent for qualified knowledge, even if the humane side of it is not considered.

When New Life comes to the flocks it comes in bunches. Usually lambs are born in twos, and sometimes threes. The handling of ewes is however, a comparatively simple matter.

They need shelter, of course. Above all else they need dry quarters. Separation by pens is desirable. Ewes know their lambs by smell, and will best remember, and seldom disown them, if the young are born away from the flock.

Lambing may occur in the sheds or in the open pasture. The sheds are preferable. Cleanliness is essential, and pure air. A reasonable degree of

warmth is desirable. Raw, cold winds, or drafts, sweeping through the sheep shed will not aid the process any.

Preliminary feeding should be similar to that advocated for the mare and cow—reasonably light and fairly laxative.

Hogs, too, need this proper, preliminary feed. A decreased grain ration can be compensated by larger quantities of mash, roots, and clover or alfalfa. Charcoal has a tannic effect. The sow should be removed to a separate pen, where ample bedding is provided. A six-inch board, fixed to all four sides of the pen like a shelf, and about six or eight inches from the floor, will save a lot of pigs. As the sow lies down against this board the pigs slip away under it. They thus escape having the life crushed out of them.

If we could provide absolutely natural conditions, New Life on the farm would know few complications. Since domestic animals are not natural we must provide against contingencies. The provision usually means little more than good, common sense.

235,000 Acres of Cut-Over Lands

We own and offer on exceptionally favorable and easy terms 150,000 acres in Delta, Schoolcraft and Alger Counties, Cloverland, Michigan.

Also 85,000 acres in the clover districts of Northern Wisconsin.
Tracts of all sizes. Terms to suit.

Bay de Noquet Co.

George J. Farnsworth, President

NAHMA, MICH.

Oconto Lumber Co.

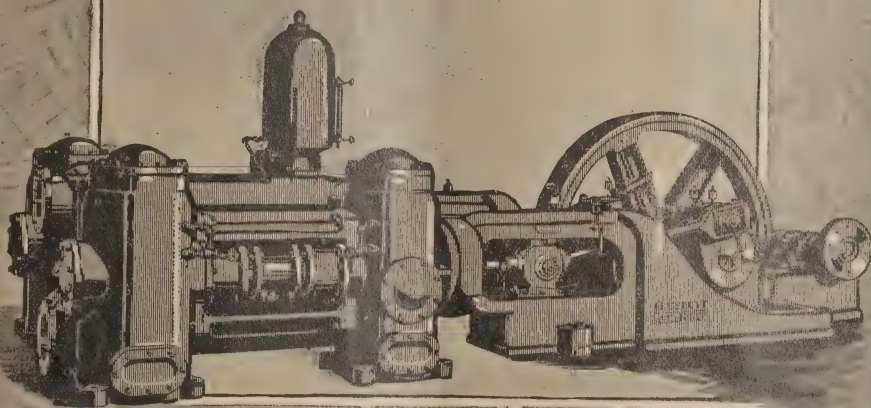
George J. Farnsworth, President

OCONTO, WIS.

Chicago Offices: Railway Exchange Building, Chicago.

PRESCOTT MENOMINEE

MINE PUMPS



**THE PRESCOTT COMPANY
MENOMINEE, MICHIGAN, U. S. A.**

Upper Peninsula Cut-Over Lands

Suitable for Grazing or General Agricultural Purposes

FOR SALE

in Alger, Chippewa, Gogebic, Luce,
Mackinac and Schoolcraft Counties

THE Northern Peninsula of Michigan is the best Live-stock and Dairy country in the United States, if not in the world. It can care for 8,000,000 sheep and 1,000,000 head of cattle.

For information write

LAND DEPARTMENT, Charcoal Iron Company of America

MARQUETTE, MICHIGAN

THE COST OF CUT-OVER LAND

(Continued from page 43)

of the second. The man who can get a place with buildings upon it is relieved of the bother and expense of erecting them; and if he can get a cleared tract, he can hope for some sort of crop when the first harvest season comes around. But of course he pays for it.

In the buying and selling of cut-over lands there is every gradation—from the full-cash-payment, to the no-cash-payment.

A good man can get a piece of cut-over land from some owners with no other assets than horse sense and good muscles—if he can make the owners believe that he will really use them both.

Or, if he has \$50 he can buy an 80, or even more with that! If he has \$500, he can buy an 80 or more, plus a house and a barn; if he has \$1,000, he can buy a partially improved farm, often containing 40 or more acres of thoroughly cleared land. Such a farm will, of course, be more expensive—that is, it is no longer a wild farm. The cleared acreage ought to be worth at least \$70 or \$80 and perhaps \$100. Probably the average price of an 80, if one-half of it is cleared, will approximate \$50 per acre. If the buildings upon it are in good condition their value will be added to the land price.

"Cut-over farms" are everything from a piece of wild land, buried under brush, to a piece of cleared land, differing very little from an Iowa, Missouri or Southern Wisconsin farmstead.

It would be unwise, indeed, to recommend any one part of the cut-over area—Cloverland so-called—as against any other part. As a matter of fact, the entire strip crossing the three states, has similar general characteristics.

Where to locate is largely a matter of personal choice. A man who does

not know the northern country might almost as safely take a map, shut his eyes and stick a pin into it, as take any other method of selecting his location. Before actually buying a tract of land he ought to see it.

If his pin hits the Upper Michigan Peninsula, it would be wisdom for him to call at the office of the Upper Peninsula Development Bureau at Marquette, Michigan. He will there get given information concerning specific tracts and ownership and will be told how to reach them.

If his pin strikes Upper Wisconsin, he might call on the Immigration Commissioner of that state, whose offices are at Madison, Wisconsin. He would find, in the commissioner, a man of sincere worth, who would advise him to the best of his ability.

If the pin hits Upper Minnesota, he might call at the Duluth Commercial Club or on the Commissioner of Immigration of that state. He would get the right kind of guidance.

But when all is said and done, land selection is pretty much a personal matter—like the selection of a horse and one's clothes. Every man has personal tastes and inclinations. One man prefers a rolling farm, another a level one. One man wants heavy clay, another sandy loam. So, although the prospective settler can get advice and ought to get it—before he finally buys, he ought to exercise both his eyes and his personal judgment.

As for soil—the great Cloverland tract offers almost any kind of soil the farmer may want. There are sands that will grow mighty crops; there are soggy, undrained clays into which one can't stick a plow. And those are the two worst extremes. Between them is a wide range, beginning with light sandy loam, going through the various silts, running into light clay loams, and going on to the heavier clay loams.

Assembled Acreages in WISCONSIN

Are Now Ready for the Western Grazer or
the Corn Belt Live Stock Farmer

RANCHES OF ANY SIZE

360,000 acres of the best grassed and clover-covered cut-over lands, all watered by streams and lakes, have been assembled in Northern Wisconsin, and will be apportioned out in solid blocks to suit the stockman.

Get your location before the Spring rush is on

Write to the

Milwaukee Association of Commerce

Athletic Club Building, MILWAUKEE, WISCONSIN

Oneida County Wisconsin

*Where 25,000 western sheep
were pastured this season*

**Some of these Stockmen are
Wintering Here**

Range for thousands more. Abundance of good water, grass and clover. Plan to graze in Oneida County, Wisconsin, in 1920, and then pick out your permanent ranch.

ADDRESS

**County Board of Supervisors
RHINELANDER, ONEIDA COUNTY, WIS.**

FARMING MARSH SOIL

(Continued from page 35)

organic matter of peat may be in different stages of decomposition; that is, it may be quite fibrous and brown in color, or it may be well-decomposed and black in color.

Muck soils are those having smaller amounts of organic matter and correspondingly larger amounts of earthy matter. For purposes of classification, 15 per cent of total organic matter may be taken as the lower limit and 50 per cent as the higher limit in mucks, so that the percentage of silty or earthy matter varies from 50 to 85 per cent. The organic matter in mucks is usually much more fully decomposed than that of peat and seldom shows any vegetable tissue except that of recent growth.

The term "marsh-border soils" is used to apply to the soils which occur on the border of marshes where the change from marsh to upland conditions takes place, and which vary in organic matter from 5 to 15 per cent. The organic matter in these soils is usually black humus, shallow in depth, and the subsoil a blue or mottled clay or sand. With them should be grouped the shallow marsh soils low in organic matter occurring along streams or in depressions in upland.

It is commonly inferred that because lowlands are, or have been, wet or water-soaked, they are sour or acid. This is not necessarily true. Many very wet marsh soils have no trace whatever of acid. In limestone areas lowlands receiving the drainage from the surrounding upland containing lime are usually not acid, or are only slightly acid. This is the case in the marshes of the eastern and southern parts of the state. Marshes not in limestone sections, like those of the central and northern parts of the state, are very acid, and some marsh soils of the eastern and southern parts of the state are also acid.

Each of the types of marsh soil have marked characteristics in regard to weight and chemical composition. Peat, when dry, weighs but 12 to 20 pounds to the cubic foot. Muck soil weighs from 40 to 50 pounds, while the "marsh-border" soils often run from 60 to 80 pounds to the cubic foot. The chemical composition also varies, especially in regard to nitrogen, which shows about the same variation that the organic matter does.

It is to be noted that the nitrogen contents (pounds) of all marsh soils is very high compared with upland soils. Peats are exceptionally rich in nitrogen because they are composed almost entirely of organic matter.

Peat soils, as a rule, are very low in the mineral elements, potassium and phosphorus. Mucks are better supplied with these two elements, though the potassium content is low in comparison with upland clay or silt loam.

The "marsh-border" soils are well supplied with both potassium and phosphorus as well as with nitrogen, and therefore have high cropping possibilities.

Since peats and mucks are low in the element potassium, crops growing on these soils are limited in yield or fail entirely unless this element be supplied in the form of potash fertilizers and manure. It is a striking fact that the lighter peaty soils contain, on an average, only about 1-28 of the amount of potassium contained in a clay or silt loam. Mucky soils, having more earthy matter, have 1-12 or 1-6 as much. Some light peats, analyzing as low as 0.05 per cent potassium, contain only about 1-150 as much of this plant-food element as is contained in a good silt loam.

It is true, of course, that the large amount of potassium in the clay or earthy portion of the soil becomes available to plants only through a slow process of chemical decomposition. Nevertheless, when there is a good supply of organic matter in a loam soil, it does not ordinarily lack enough potassium to permit the growth of crops. The exceptions are heavy crops of those plants which take unusually large amounts of the ele-

ment crops such as cabbage, sugar beets, tobacco, or potatoes. In the case of peat soils the total amount of potassium actually present would often suffice for only a few crops, even if every particle of it were available, which is never the case, of course.

There are several kinds of potash fertilizers. Some of these are valuable for their potash only, while others also contain phosphorus and, often, nitrogen. Fertilizers containing two or all three of the elements, nitrogen, phosphorus, and potassium, are called mixed or commercial fertilizers. Those containing potash only, such as the muriate and sulphate of potash and kainite, have been almost entirely imported from Germany and the supply has been cut off by the war. On marsh soils needing only potash they are, of course, the cheapest and best fertilizers to use when they can be had. High grade muriate and sulphate of potash contain nearly 41 per cent of potassium and kainite contains from 10 to 12 per cent.

Mixed or commercial fertilizers ordinarily contain very small amounts of potassium, if any, but the fertilizer companies are beginning to manufacture mixed fertilizers which are especially adapted for marsh soils and contain from 8 to 10 per cent of potash, together with phosphorus and small amounts of nitrogen. On marsh soils needing both phosphorus and potassium such fertilizers are very satisfactory, though more expensive than an equivalent mixture of a high-grade potash fertilizer and acid phosphate. The percentage of potassium in the fertilizer must be considered in determining the amount to apply. There is as much potassium in 100 pounds of high-grade muriate of potash as in 1,000 pounds of a mixed fertilizer containing but 5 per cent of potash.

Dry, unleached hardwood ashes ordinarily contain from 2 to 4 per cent of potassium. As the potash in wood ashes is very soluble it is important that they be protected from leaching. Ashes are sometimes allowed to accumulate near sawmills, especially in the northern part of the state, and can be had for the hauling. The effect of ashes on some of the marshes in the north central part of the state, which are decidedly acid, has been so beneficial that the results obtained could not be duplicated by any combination of commercial fertilizer. The alkalinity of these ashes evidently caused the peat to decay more rapidly, thus furnishing available nitrogen.

The amount used depends largely upon the crops to be grown. Such rank-growing crops as beets and cabbage should have a heavier application than the cereals and hay grasses. When these crops are grown in rotation it may be unnecessary to use the potash fertilizer in seeding down with a cereal, following a crop on which a heavy application was used the previous year.

On marshes underlain by clay and where the overlying peat or muck is from twelve to fifteen inches in depth, it frequently happens that there is a marked need of potash fertilizer or barnyard manure for a few years after it is first drained. After that time this need partly, or entirely, disappears. This is probably due to the fact that the settling of the peat or muck in draining and working permits the subsoil, which contains much larger quantities of potassium, to work up in the soil.

A marked illustration of this fact has occurred on the Experiment Station farm at Madison, where about twenty-six years ago a tract of land, then distinctly marsh, was tile-drained, and for the first few years showed a very great deficiency of available potassium. Fertilizers containing this element would increase the yield three- and sometimes four-fold. During the last few years, however, this marked need of potash fertilizers has largely disappeared. A part of the necessary potassium has become available from the subsoil while a need of phosphorus and nitro-

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Improved LANDS Cut-over VAN ORDEN BROS.

Houghton "Cloverland" Michigan

(Continued from page 51)

gen has gradually developed, so that a complete fertilizer, such as barnyard manure, is now the most helpful. It should be understood, however, that this condition can only develop on peat and muck soils that are comparatively shallow and underlain with clay.

The phosphorus in marsh soils is generally high compared with upland soils. Analyses of these soils, as far as made in this state, show a variation of from 0.053 to 0.26 per cent. When the extreme lightness of peat soils is considered, however, it is seen that the total amount of phosphorus occurring in them may be extremely small, in some cases not exceeding 185 pounds in the surface eight inches of an acre of soil. Since good crops of grain or corn will remove annually from eight to twelve pounds of phosphorus, it will be seen that the total amount at present may not be sufficient for more than twenty to twenty-five good crops. Moreover, a considerable part of the phosphorus present in the soil may not be available.

On the other hand, many marsh lands containing very much larger quantities of this respect compare favorably with upland soils. It is highly desirable, therefore, that before expensive reclamation is undertaken a chemical analysis is made of each area.

Phosphorus in Many Marshes Not Available.

Experiments made on several different marshes in this state indicate that not only is there a great variation in the total amount of phosphorus present in marsh soils, but there is even greater difference in the readiness with which plants can extract that which is in the soil. Experiments made at Marinette with phosphate fertilizers on peaty marsh soils, underlain by sand, showed that phosphate, as well as potash fertilizers or manure, must be used before maximum crops can be grown on that marsh.

On this peat soil without fertilizer practically no crop could be grown. With the use of one ton of wood ashes to furnish potash, a yield of twenty-six bushels of barley an acre was grown, and when 500 pounds of acid phosphate in addition to a ton of ashes were used to the acre, the yield of barley was thirty-six bushels an acre. When 300 pounds of acid phosphate were used in addition to the ashes a yield of 196 bushels of potatoes were obtained. With only the ashes the yield was 142 bushels and with no fertilizers the yield was sixty-six bushels an acre.

Acidity is one of the most important factors influencing the availability of phosphorus in marsh, as well as other, soils. As a general rule, it is found that acid soils are low in available phosphorus. The only exceptions to this rule are those cases where the soil is naturally acid but where the supply of available phosphorus is kept up by heavy applications of manure or other fertilizers. Since the marshes of the eastern and southern parts of the state are, for the most part, neutral or very slightly acid, the phosphorus in them is usually more available, while the very acid marshes of the central and northern parts, occurring in sandstone and granite regions, very commonly show marked deficiency in available phosphorus.

Some marsh soils of the eastern and southern parts of the state, even though not acid, have shown a marked deficiency in the availability of their phosphorus content.

It is true, of course, that where the total phosphorus is low, no matter if the present supply is readily available, it will be exhausted in time and a deficiency will become apparent.

The best way to meet the deficiency of phosphorus in any soil is by applying phosphate fertilizers, of which there are four principal kinds, acid phosphate, ground steamed bonemeal, raw rock phosphate and mixed fertilizers. Acid phosphate contains phosphorus in a soluble and available form, so that a smaller amount of it will give better results than in the other cases. It is the form which it is

safest to use until a farmer knows definitely that his land requires a phosphorus fertilizer. It is probable, especially on marsh lands, that raw rock phosphate may prove cheaper in the long run, but it does not give such marked results the first year or two.

In many cases the use of just one kind of fertilizer does not give the best results on marsh soils. On many peats and mucks, particularly those of southern and southeastern Wisconsin, potash fertilizers alone give excellent results, especially during the first few years of cropping. But in many cases the addition of phosphates in greater or less amounts, depending on conditions, is necessary for the most profitable yields. On all acid marshes both kinds of fertilizers must be used. To facilitate application they should be mixed just before applying. Or mixed commercial fertilizers containing both potash and phosphorus may be used. These have some advantages over a homemade mixture of muriate of potash and acid phosphate in that a filler or drier is used which keeps the mixture in better mechanical condition for spreading. This makes the cost somewhat higher, of course.

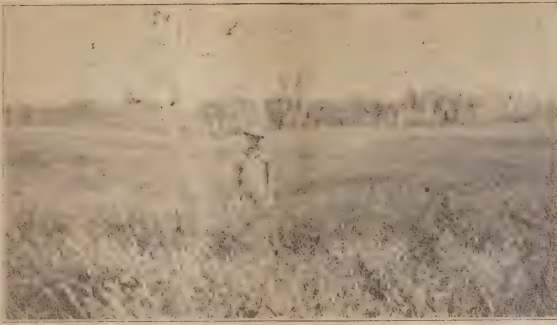
Two methods of applying fertilizers are in use. They may be spread broadcast on the plowed ground and disked in before planting or seeding, or in the case of crops planted in drills or hills, they may be applied near the drill or hill by the use of planters carrying fertilizer attachments. When applied broadcast from 300 to 400 pounds of acid phosphate and 150 pounds of muriate of potash are the quantities best to use for all staple crops, such as hay, grain, or corn. For truck crops such as cabbage, sugar beets and onions, which make much heavier growth, these amounts should be increased from 50 to 100 per cent. When applied in the hill or drill the amount to the acre must be much less or there is danger of injury to the young seedlings. The use of 100 pounds of acid phosphate and fifty pounds of muriate of potash in this manner will often give nearly as much increase in yield during the first year as the larger application made broadcast, but yields on the land to which the larger application is made broadcast will be greater in succeeding years. When applying fertilizer in the hill or drill the planter used should be one which carries the fertilizer in a separate box from which a separate tube runs to the soil. In this way some soil is allowed to fall between the seed and fertilizer.

When potash fertilizers, manure, wood ashes are not available, very good results can be obtained by using a 0-10-10 mixed fertilizer applied in the hill or drill with a fertilizer attachment at the rate of from 150 pounds (when dropped in the hill) to 300 pounds (when dropped in drills) to the acre. In case of truck crops 300 to 400 pounds an acre of a mixed fertilizer are often applied, broadcast in addition to 100 to 200 pounds applied in the drills.

On marsh soils where there is a deficiency of only phosphorus and potash and almost an over-supply of nitrogen, it does not seem wise to use manure, which contains considerable nitrogen and a much smaller amount of phosphorus and potassium. The amount of phosphorus and potassium in ten tons of manure can be applied in the form of acid phosphate or bonemeal and muriate of potash (at normal prices) at a total cost of \$4.50 to \$5. The manure can be used to better advantage on high land which needs all the elements manure contains, particularly nitrogen. Nevertheless, it is often best to use fertilizers containing 1 or 2 per cent of nitrogen for crop planted early which must make a quick start to be successful.

About 80 per cent of the work in producing crops in the United States is now done by farm machinery. The investment in all this farm equipment represents more than 3 per cent of the total capital of the nation.

The Michigan Fruit Growers' Exchange handled business in excess of \$1,250,000 in 1919.



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Write our Chicago office, and our Mr. Arnold L. Olson will call (his present address is at Twin Falls, Idaho). Mr. Olson, while county agent in Northern Michigan met many western sheep ranchers who settled there, and KNOWS what YOU NEED and what WE HAVE.

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This cut shows topography of some of our grazing lands.



PURE-BRED SIRES

By DUNCAN L. McMILLAN
Superintendent U. P. Experiment Station, Chatham, Mich.

THEORETICALLY, there is no legitimate reason for the large percent of scrub sires that are now being owned and used. Practically, there is a very good reason why they are here.

With cleared land fenced, and many depending upon the wild unfenced land for their pasture, there has been little incentive for a man to keep a purebred bull, as his chances for having his cows bred to that bull were very poor. However, with the present high prices of feed and labor, it is impossible for any stock man to make money with anything but good stock.

There are five logical stages of development to be considered:

- First: Developing the attitude among farmers for better stock.
- Second: Organizing live stock associations, and other means for buying high class sires.
- Third: Enforcing the present State Scrub Bull Law.
- Fourth: Better feeding and barn management.
- Fifth: Starting purebred herds and flocks.

There is no need of enforcing the scrub bull law until the farmers in that community have a desire for better stock. This has been proven out time after time.

This stage of development comes slower possibly, than any of the others, but it is safe to say that in the Upper Peninsula of Michigan, there are few communities at the present time, in which the better farmers are not wishing for the enforcement of this law, and through them quite largely, the attitude of the community, for better stock will be developed. County agents are doing a great work in organizing purebred bull associations, and other live stock associations, in nearly every county of the Upper Peninsula.

As an example of this development, we will take the work done by one county agent, in a community where scrub bulls ran at large. He talked with a few of the best farmers in this particular community, who wanted to improve their stock, and induced them to organize a bull association, then assisted them in purchasing a high class of purebred bulls. At their first regular meeting, the matter came up of how to keep their cows from being bred by the scrub bulls that ran on the road. The outcome of his situation was that the sentiment was rapidly developed against the scrub bull, and they were eliminated without any hard feelings among their owners. Today they have every opportunity for rapidly grading up their herds.

Just recently a man near this experiment station, has requested assistance in purchasing eleven purebred Guernsey bulls, to place among the farmers of this county. Similar efforts are coming in from many counties of the Upper Peninsula. This means the doom of the scrub bull, and the commencement of rapid development of live stock in those sections.

The present corps of active county agents, have given great impetus to his movement, and will continue to give valuable assistance in the great amount of follow-up work that will be necessary, to enable the farmers to

get the additional returns from their improved stock.

A large number of our stables will have to be better ventilated, and better lighted, in order to insure health of the stock. New basement barns will be built, and a silo erected on every farm where much stock is kept.

A better system of feeding must be studied out to enable the farmers to feed economically, while at the same time work their cows to full capacity, and a rotation of crops planned, so as to avoid the necessity of purchasing feeds, other than certain concentrates.

There is no better reason for keeping a cow capable of producing 12,000 pounds of milk a year, and only feeding her so that she can produce 5,000, than there is for buying a thirty-two horse engine for doing a ten horse engine work. All feeders know that it requires a certain amount of feed to maintain an animal, without work. Many scrub animals can not produce very much extra on the best of feed, while a good individual will take a large quantity of additional feed, and pay big returns to its owner.

In the improvement of live stock in the community, the farmers should get together and decide on one or not more than two breeds, of each line of stock raised, such as sheep, dairy cattle, beef cattle, or hogs, that they think is best adapted for their conditions. Then buy the very best sires that it is possible to get. The assistance of a county agent or some reliable breeder should be secured in picking these animals. After these purebred sires have been obtained, great care should be exercised in developing their off-spring.

A large percentage of dairy calves, that should make high producing cows, are ruined before they are three months old. It is almost impossible to develop a high producing cow, from a calf that has been stunted in its early life. Much of this undevelopment among calves, is due to over feeding of skim milk and allowing them to sleep on wet bedding. These conditions invariably cause scours or indigestion, which not only retards the development of the animal in size, but also impairs its ability to assimilate large quantities of food, after freshening.

The same principle holds true in the up-grading and improving of sheep and hogs, that work out with dairy animals, except that the improvement can be accomplished more rapidly.

Lambs or pigs produced from a good type of purebred sire, reach maturity earlier, with the same amount of feed, and carry a form much more desirable to the butcher, and commanding better prices.

When a farmer reaches the stage in his live stock management, where he can grow a grade heifer to maturity in good shape, has acquired ability to feed her so that she will produce to her maximum, has the feed and barn equipment, then he is qualified to begin raising purebreds, if he so desires.

Many a farmer has lost heavily with purebred stock before he has mastered the art of live stock management sufficiently to make good grades pay out.

Let us all do our bit to speed the day when none but good purebred sires will be used in our herds and flocks of this north country.



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in Tracts to suit
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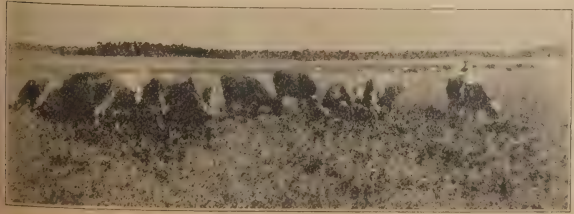
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We invite letters of inquiry
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of Marquette**
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Over \$2,000,000.00 Resources.

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Marquette, Michigan

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3% Interest paid on Savings Deposits.

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Financial Department

Farm Banking

"ONE of the first false notions to correct is the generally prevailing opinion that farming is a small business in which anyone can engage.

"The facts are that the smallest unit of an average diversified farm is far bigger than the average city business. It is true that there are some farm enterprises that require a comparatively small capital investment, but even these are bigger than the bakeries, cigar stores, and corner groceries of the city, and demand a higher quantity of business scale and experience."

The above statement is made by the Land Settlement Commission of the State of Oregon. The statement further says: "It is recognized that the trouble with the business of agriculture is largely a matter of finance. In order to finance the business it must, of course, be organized on some practical plan of farm management.

And in order to reach the greatest number of farmers the easy payment plan is needed, with a certain percentage of the entire purchase price paid down, and the balance like rent until the farm and home are paid for.

The commission tried to formulate some plan that would lead to an adjustment, where adequate financial assistance could be demanded by the experienced farmer, and could be secured from the usual banking channels, with the same ease that a man in business in the city can find accommodation."

In Wisconsin, Michigan, and Minnesota similar conditions prevail. It has been recognized for some time that farms—especially on filed lands—must receive more adequate financial support. Many plans have been suggested; state subsidy or state loans, and

federal loans were among them. Financiers have gradually disregarded these suggestions. They seem to agree that the farm ought to be financed by strong development companies or land agencies. They feel that these agencies, since they operate in a big way, can secure credit from the banks (federal and state) where the individual farmer cannot secure such credit.

The federal farm loan is actually of mighty little value to the farmer—especially the new farmer. He can borrow, of course, but before he can do so, he must already own considerable property to offer as security. By the time he has acquired this property he has met the greatest of his difficulties. He needs banking support or credit during his first year of operation. By the time he has acquired a farm and paid for a large part of it, and by the time he has managed to put up buildings, he is "over the top."

Until something comprehensive has been worked out, it seems that the problem must be met by the local banker. Banks must extend credit if they would aid agriculture, and there by advance their own interests. They must, for a time at least, consider the moral risk rather than collateral or other security. They must, either directly or through subsidiary financing companies, take larger chances with farm loans.

The farm loan is a safer risk than most other financial transactions. It is primarily important that the money loaned is actually used for farm development, and that the man using it has ability as a farmer. If reason able sums, for instance, are expended to clear land, the expenditure creates its own security. In other words every dollar going into such lands increases its value by at least two dollars.

However, the banker must not fool upon farm financing as he does upon industrial loans. Farming is vital to the banker's own future. It is vital to the nation. Today's statistics—perhaps they are exaggerated—indicate a dangerous trend toward cities. It is true that this movement has been going on for years. It is also true that there seems to have been sufficient production in spite of it. Certain statisticians recently have said that 98% of the boys, who are listed from the farms, failed to return to them. Among forty thousand replies to questionnaires received by the post-office, an overwhelming number of farmers say they are about to reduce acreage or move to town. Even though there may be certain exaggerations in these similar statistics it is evident that any effort to aid successful farming is meritorious.

The farmer, therefore, who enjoys his occupation but finds it difficult to meet the demand, ought to consult his local banker. The local banker, if consulted, ought to free his attitude of mind from the extreme caution that marks most banking operation. He must look upon his farmer client with a degree of liberality that need not be expected by the industrial client.

"A farmer came in to see me the other day," says H. N. Duff, executive officer of the Michigan Securities Commission, "and said he had invested \$6,000 in Liberty bonds of various issues. Then some crook came along and told him he never would be able to get dollar for dollar for his Liberty bonds. Then he sold the old fellow's stock. No, I don't know now whether the stock will be good. It is a gamble. But I believe, from the number of propositions which come to this commission that the old farmer's money is lost. He had it in the best security in the world, bonds of the United States government. Now he has some oil stock which I believe is worthless."

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Speaking of Banks and Banking

Capital and
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And "Banking by Mail" is perfectly safe if the sender uses ordinary care in mailing his letters. Money can be sent in the form of a post office or express order, draft or check, and without being registered. Currency should be forwarded by registered mail—always.

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NATIONAL BANK**
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CATTLE and Sheep Men locating in this vicinity will find us both able and willing to assist them.

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THE BANK FOR YOU
SAULT STE. MARIE, MICH.

AMERICAN EXCHANGE NATIONAL BANK OF DULUTH, MINNESOTA

Checking Accounts Foreign Exchange
Savings Accounts Safe Deposit Boxes
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OUR Certificates of Deposit afford a convenient and secure manner of investing any desired amount—with the principal always available.

CITY NATIONAL BANK
of Duluth

Cloverland Bargains

RATE: Seven Cents a Word

Copy for the Cloverland Bargains column must be in the office not later than the fifteenth of month preceding publication. Address all want ads to the CLOVERLAND MAGAZINE, Cloverland Bargains Dept., Menominee, Michigan

A FINE FARM FOR SALE—200 Acres, one mile west of Carney, Michigan, which has good schools and a creamery, 150 Acres of this land is cleared; has a good house and hay barn and small orchard, plenty of running water all the year. Uncleared land is well seeded to grass; the soil is clay loam. There is not an acre of poor land in the farm. Easy terms. Address Box 58, % Cloverland Magazine.

HAY—Write or wire us whenever in need of Clover or Timothy Hay, also Straw, in carload lots. Dafter Hay & Grain Co., Dafter, Michigan.

CAN HANDLE several 60 to 100 acre farms if highly improved and well stocked. Also some partly improved. Walter Miller, 320 Brumder Bldg., Milwaukee.

FOR SALE—400 Feeding pigs, eight weeks old, at \$9 each, delivered. Booking orders now for May delivery. Ernest Dutcher, Whitewater, Wis.

FOR SALE—Pure bred Guernsey bull, 2½ years old. Sire Masher Rockwell, dam, Carlon Chosan. Price, \$200, or will exchange for breeding ewes. Address Herbert Burrows, Emetta P. O., Lake County, Minn.

FOR SALE—One fine 3,200 lb. team, heavy geldings, and 7 years old, gentle, experienced farm team; includes heavy farm harness in A-1 condition; price \$450. One grade cow, half Jersey, half Guernsey, 8 years old, gentle as a lamb, gives 14 quarts when fresh, freshens in July; price \$150. One 1918 Ford touring car, excellent mechanical condition, tires new; price \$450. One western saddle, pony, rein broken, speedy, full of life, gentle; includes fine western saddle, price \$60. Ten tons A-1 clover hay, 25 tons clover and timothy mixed; baled; at market price. Address, W. B. Wallace, Lakewood, Wis.

GET OFFICIAL INFORMATION regarding soils, climate and crops of Price County, Wisconsin, from the Representative of the College of Agriculture and the U. S. Department of Agriculture. Improved, partly improved and undeveloped land \$10 to \$100 per acre in Price County. Most rapidly developing live stock, dairy and general farm country in the clover belt of Wisconsin. Write H. Rahmlo, County Agricultural Agent, Phillips, Wis.

FOR SALE—250,000 acres of unimproved cut-over lands in tracts to suit purchaser. Prices \$5 to \$15 an acre, terms reasonable. Address J. M. Longyear, Marquette, Mich.

FOR SALE—We own grazing lands in the great open areas of Cloverland, where natural grass seedings are found. We can offer you any size tract desirable. Write for full particulars. Baldwin Corporation, Appleton, Wis.

FOR SALE—We own 15,000 acres of cut-over lands in Dickinson, Baraga, Menominee, Iron and Gogebic counties in the Upper Peninsula of Michigan; 20,000 acres in Forest and Florence counties, Wisconsin. Any size tract on easy terms. J. W. Wells Lumber Co., Menominee, Mich.

FOR SALE—We have tracts of cut-over lands of all sizes for practical stockmen who want to succeed in a permanent manner. Consolidated Lumber Co., Manistique, Mich.

FOR SALE—Choice cut-over hardwood lands, especially adapted to grazing and general farming. Small or large tracts at reasonable prices, terms to suit purchaser. Northwestern Coopers & Lumber Co., Gladstone, Mich.

FOR SALE—Upper Peninsula cut-over lands suitable for grazing or general farming, in Alger, Chippewa, Gogebic, Luce, Mackinac and Schoolcraft counties. For information write, Land Department, Charcoal Iron Company of America, Marquette, Michigan.

FOR SALE—Any part of 100,000 acres stock lands or farms in Michigan or Wisconsin. Write for books and prices. Menominee Abstract & Land Company, Menominee, Mich.

IDEAL SHEEP LAND—Fertile soils that grow corn, wheat, oats, barley peas, vetch, clover, alfalfa, fruit and vegetables, in 1,000, 2,000 and 3,000 acre tracts, and smaller if desired, \$10 to \$15 per acre, easy payments, interest 6%. Easily cleared, well grassed and watered by small lakes and streams. Located in the heart of Lower Michigan's clover seed belt. No cash payments required if responsible purchaser will grow annually 4 per cent of acreage to clover and apply proceeds from seed yield upon payment of land until paid for. Clover seed one year after another in Presque Isle County nets growers \$100 an acre. John G. Krauth, Millersburg, Mich.

HIGH GRADE Holstein or Guernsey calves, either sex, 6 to 8 weeks old, \$30 each, delivered. Ernest Dutcher, Whitewater, Wis.

FOR SALE—347-Acre farm located in North Central Wisconsin now being operated as sheep ranch and general farming—have 400 sheep now, 120 tons good hay—necessary implements—horses, etc.—good soil for all grains and hay—raised 200 bushels potatoes per acre this year—fenced and cross-fenced complete with woven wire, excepting 40 acres—new sheep sheds—other buildings in fair condition—approximately 60 acres under plow, 100 acres brushed and in pasture balance light growth of brush with excellent pasture—Land is capable of pasturing 800-1000 sheep—Large sheep raisers near by. Due to inability to live on farm will sell farm, live stock, hay, grain and implements as a whole or in part. Write for details. F. A. B., care Cloverland Magazine.

FARMS FOR SALE—144 Marathon County Farms we offer at a reasonable price. Write for list. Pehn Land Co. Office over 5c and 10c Store, Wausau, Wis.

FOR SALE—\$50,000.00 property in heart of booming city. Will take \$35,000.00 cash, balance cut-over land in Wisconsin. Fred Wegener, West Bend, Wis.

AGENTS WANTED—If you are making less than \$150 a month, write us today. We have no "get rich quick" plan, but if you are wide awake, honest and willing to work with us and give us at least part of your time, we can offer you an opportunity to make from \$30 to \$50 a week. Just drop us a postal card for complete particular, free. Box 123, Cloverland Magazine.

FOR SALE—Several sections of best cut-over land, near railroad, on good roads, close to Superior, \$20 per acre, easy terms. Also have a few good improved farms for sale. For information, write John W. Lake, Poplar, Wis.

FLORENCE COUNTY, WISCONSIN LANDS

for sheep and cattle ranches, in tracts of 320 acres up to 5,000 acres. For full particulars, write

PETER MCGOVERN LAND CO., Florence, Wis.

EAT FISH

We offer for Lent—Fresh weather-frozen round Silver Herring at 5c per lb. Make money orders payable to WANKE FISH CO., Box 125, Menominee, Mich.

Suggests Simple Remedy to Rid Hogs of Worm

Worms are responsible for many unthrifty herds of hogs, and often aid serious swine diseases to gain a foothold, says G. Bohstedt, of the animal husbandry department of the Wisconsin College of Agriculture.

"To prevent worms feed the pigs well," he urges, "especially young pigs. Do not throw the feed in the mud. Keep the lots pens clean and free from old rubbish or filthy wallows."

A formula used successfully in the Wisconsin Experiment Station herd as a worm expeller includes:

Santonin, 2½ grains.

Calomel, 2½ grains.

Areca nut, 1 dram.

Solium bicarbonate, ½ dram.

This is a dose for a fifty pound pig and may be used in proportionate amounts for a larger or smaller pig. The santonin and calomel are the two most important parts of the formula and should be used if either of the two be not readily available.

"Withhold feed eighteen hours previous to treating pigs," advises Bohstedt. "Give the medicine in thin slop, if pigs are accustomed slop, otherwise by the drench method. See that each pig gets its share. Repeat after a week or ten days."

"A good method is to have your druggist make up ten times a formula for a package so as to enable one to treat lots of ten pigs each."

Cloverland — Improved Farms Grazing Lands

QUALITY

PRICE

SERVICE

Write me
at MENOMINEE, MICHIGAN



WHAT THE

I. Stephenson Company Trustees

WELLS, MICHIGAN

Offer to Homeseekers on the Sunny Side of
Cloverland, the Upper Peninsula of Michigan

—Choice of 400,000 acres of land at prices ranging from \$20 to \$30 an acre for cut-over land.

—A climate the same as upper New York, northern South Dakota and central Minnesota—this district is 600 miles south of the much advertised wheat belt of Canada.

—A variety of soils fit for all crops grown in the north temperate zone.

—Good roads, good schools, good water and climate.

—Home markets that now are forced to depend on outside communities for much of their food.

—Railroad service that brings 10,000,000 people within a night's ride for farm products, and the equal of that afforded the farmers of Indiana, Illinois and Iowa.

Fruit, Dairying and Live Stock,
Truck Gardening, Grains,
Root Crops

—An unsurpassed fruit country, protected by 1,000 miles of shore line along Lakes Michigan and Superior—a practical insurance against frost damage. A choice of five lines of farming.

SHEEP and CATTLE

Find the Best Grazing Lands in the world in Northern Wisconsin and the Upper Peninsula of Michigan.

We offer great inducements.

Write Us for Particulars

BALDWIN CORPORATION, Appleton, Wis.



Anchors Like a Rock!

W E have used that phrase over and over in telling you about RED TOP Fence Posts. It isn't just a catch phrase. It's a fact. Note the illustration.

The RED TOP post drives down into the subsoil. It wedges its way in without disturbing the soil. The anchor plate becomes solidly imbedded; it holds the post firmly in place. There is no frost heaving.

The result is a strong, straight fence line that holds true year after year—a fence line that requires no replacements. That alone means a big money saving.

And RED TOPS actually cost less in place than wood or concrete posts. The saving comes in setting the posts. RED TOPS drive like a stake. No holes to dig. Farmers have told us that it costs them one cent to set a RED TOP post as against ten to twenty cents for a wood post.

Add to this the fact that RED TOPS will not bend, buckle, burn, break or rot—that they protect the stock from lightning—and you can see why thousands of farmers use only RED TOPS; why it has become the standard post.

Send now for booklet giving all the facts about RED TOP Posts

If at any time your dealer can't supply you, write direct to us.

CHICAGO STEEL POST COMPANY

210-B South LaSalle Street - Chicago, Illinois

Canadian Factory: Preston, Ontario, Canada

You take no chance. Any RED TOP post that breaks in the fence line will be replaced by your dealer without cost or argument.

It is worth remembering that RED TOP is the only guaranteed fence post.

Red Top Guaranteed Steel Fence Posts



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THE MICHIGAN
COFFEE & SPICE
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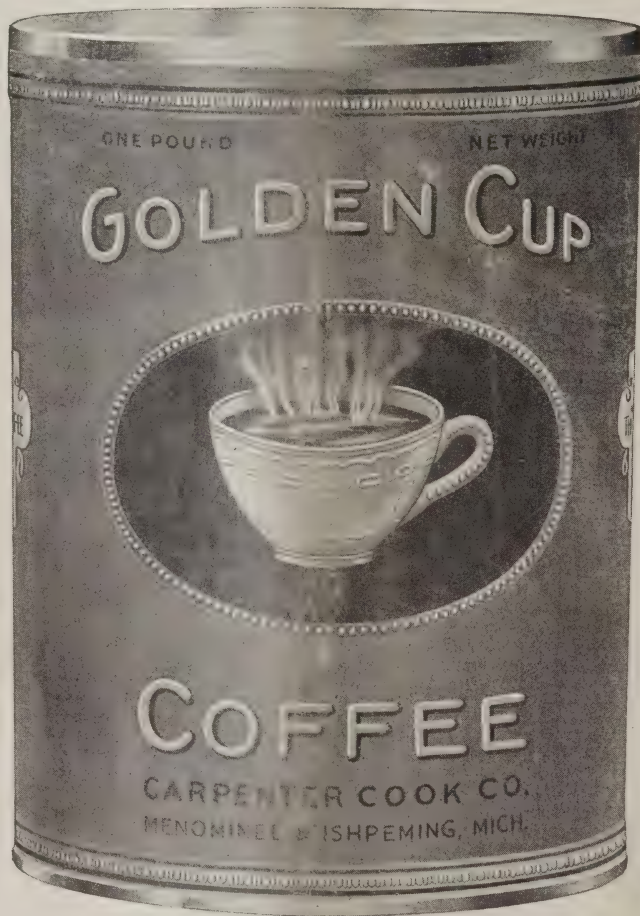
Menominee, Michigan

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THE MICHIGAN
COFFEE & SPICE
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Menominee, Michigan

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in Cloverland*



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Menominee, Michigan

CLOVERLAND

MAGAZINE

The Dominant Agricultural Journal of the Northern States

APRIL, 1920

10c The
Copy



Read J. Ogden Armour's Statement in "The Last American Frontier"



The Transformation of Cut-over Land Into Valuable Farm Land.

Gogebic County, Michigan Offers YOU—

Unexcelled clover and blue grass growing and farm lands are to be had here in large or small tracts.

Several 1,500 acre, 3,000 to 8,000 acre tracts are available. 50 per cent of these lands are burnt over and 30 per cent of them are open with an abundance of pasturage for both cattle and sheep.

Transportation facilities are good. The C. & N. W. and the D. S. & S. course the entire length of Gogebic County, providing excellent unloading and loading opportunities.

Nearly all tracts lie adjacent to the Cloverland Trail and other splendid roads. Plenty of clear spring water.

Green Bay, Wis., St. Paul and Chicago, 200, 225 and 400 miles distant from Gogebic County, furnish the markets. Shipping facilities good.

These lands are rolling with little if any swamps. Small winding streams course through most of them.

Good roads intersect at frequent intervals all through the county. Our school system is the best that we can make it.

The local markets of Ironwood, Bessemer, and Wakefield and other smaller cities and villages furnish good markets for all farm products. Our clay loam soils are highly productive. The proximity to busy, bustling mining cities of 20,000, 6,000 and 3,000 is a natural asset.

Either of the undersigned will put you in touch with land owners or their representatives, show you the county and see that proper unloading chutes, etc., that you may desire, are ready for you upon your arrival.

We believe in our lands and shall render you all the service at our command. A postal will bring you an answer to your inquiries.

Address,

C. E. GUNDERSON,
County Agricultural Agent,
Ironwood, Mich.

W. F. TRUETTNER,
Chairman of Gogebic County
Board of Supervisors,
Bessemer, Mich.

FRANK A. HEALY,
Secretary Gogebic County Fair
and Agricultural Ass'n.,
Lock Box 75, Ironwood.

*A Never-failing Range
That Is Never Overcrowded
May Be Found In
Gogebic County, Michigan.*





Northern Minnesota Is Your Opportunity

If you have energy without capital you can succeed. What others have done you can do.

If you have energy and capital to add you can succeed more quickly upon the capital invested in Northern Minnesota than anywhere else.

Dairying and Clover

Natural advantages make the Lake Superior district the coming dairy section of the world. The dairy business has made remarkable growth in Northern Minnesota during the last ten years.

Greater Cloverland is an appropriate title. Clover creeps everywhere, it is a weed of wonderful value.

Grasses grow luxuriantly. The grazing season is weeks longer than anywhere else, longer than further north, longer than further south, the lake does it.

The 1918 Grand Champion Guernsey cow of ten shows, including the Waterloo Dairy Cattle Congress and the National Dairy Show, is a part of one of the several nationally famous dairy herds of Northern Minnesota. The picture above is that of the Island Farm, the home of the nationally known Guernsey herd, including Imp. Bella II du Grand Fort, the 1918 champion Guernsey, owned by G. G. Hartley, of Duluth.

The products of the dairy always command good prices and particularly so in this section. Later the dairyman may make cheese, but at present he cannot afford to disregard the local market for milk and cream.

It is conceded that the opportunities afforded the dairyman are more certain in Northern Minnesota than any other line of agriculture, when everything is considered, soil, climate, crops and above all clover. Come and be convinced.

Potatoes and Root Crops

Potatoes are the settler's first crop. Under ordinary conditions potatoes yield 200 bushels to the acre. During the past year, exhibiting at all competitive shows in the Central West, St. Louis County took 125 prizes as against 113 prizes awarded to all competitors.

All manner of root crops grow in amazing abundance, making market gardening on small tracts close to the consuming markets of the cities a highly profitable and interesting occupation.

Sheep and Cattle Grazing

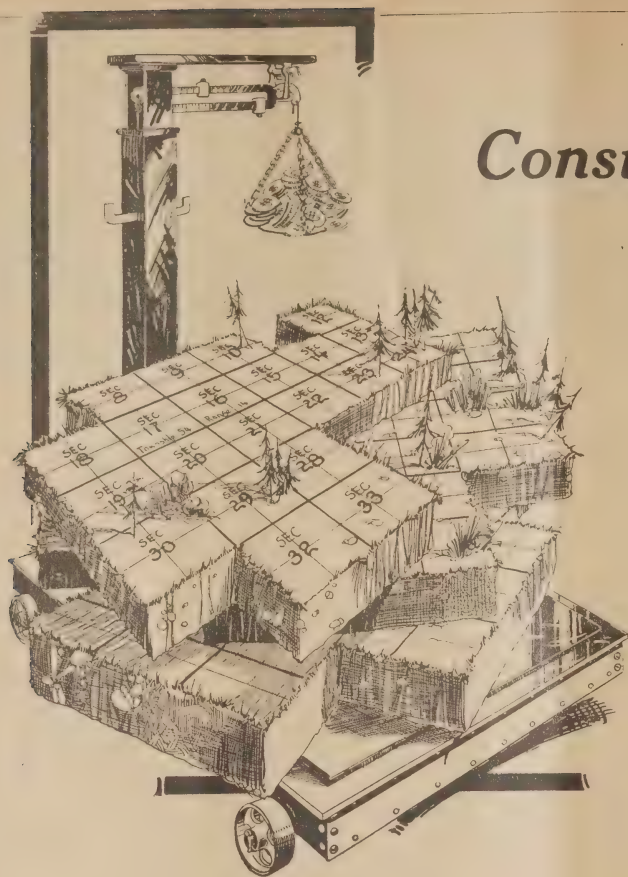
45,000 head of sheep in bands ranging from 1,000 to 13,000 in size were shipped onto Northern Minnesota lands last year. The great amount of natural feed, present everywhere, the large yield of clover running as high as five tons to the acre, and the ability to acquire large areas of good land at low prices is causing the Western grazer to look to these lands for the continuation of his industry.

Why You Are Interested

The country is adaptable to several classes of people, who for various reasons are desirous of making a change. First, the renter who finds the purchase of lands in older settled communities impossible and yet is anxious to secure a home of his own. He wants the rise in value of the land that has made his landlord wealthy. Second, the farm owner, who finding the high price of his land has made it practically impossible to secure more than a very meager net return on his investment, has sold his farm and now seeks a new location. Third, the immigrant who is looking for a new home. Fourth, the office man who sees nothing ahead but his salary and who is among the great multitude who want to break into business for themselves. Nowhere can this class of people accomplish more with their money. Fifth, is a great class of people who are overworked or unemployed who will find here a means of securing a living and rapidly develop into land owners. If you would like to know more about these lands, write

F. D. SHERMAN, Commissioner of Immigration : State Capitol, St. Paul, Minn.





Consideration No. 4

*Weighing
the
Evidence*

When Shall I Come
to Look Over the Lands of Northern Minnesota?

IF WHAT you have said about the lands of Northern Minnesota in Greater Cloverland are true, and your free trial offer still holds good, I believe I will come soon and look these lands over," says a rancher with whom we have been in correspondence. Nuff sed. Consider yourself invited. A man will be placed at your disposal to show you over the lands and help you in every other way to see all there is to be seen. But don't wait, start now, get in early. Pick out the location on which you want to try out the country, and get your stock in before the grasses and clover get too large. Don't wait a day, now is the time for action.

CLOQUET LUMBER CO. NORTHERN LUMBER CO.
JOHNSON-WENTWORTH LUMBER CO. Cloquet, Minn.



In the Spring the Feeder's Fancy Lightly Turns to thoughts of — Something to Put on Grass

IF you need Stockers or feeders send us your orders. It is a specialized, highly organized part of our business.

Our men being always on the market know values and available offerings and are therefore in a position to supply your wants to best possible advantage

Send us your orders. We know we can satisfactorily fill them.

CLAY, ROBINSON & CO.

CHICAGO	SOUTH OMAHA	KANSAS CITY	SOUTH ST. PAUL
EAST ST. LOUIS	SOUTH ST. JOSEPH	SIoux CITY	DENVER
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General Motors Trucks

A PRODUCT OF
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Built in all sizes From $\frac{3}{4}$ -1 Ton to 5 Ton Capacity



At Milwaukee, Wis.—

A $\frac{3}{4}$ -1 ton GMC Truck in the service of the Wisconsin Telephone Co. at Milwaukee. This truck has over 37,000 miles to its credit and is good for many years to come.

Telephone companies must have dependable and low-cost service. There are hundreds of GMC's in telephone service in all parts of the United States.

At Lancaster, Wis.—

A $1\frac{1}{2}$ -ton GMC Truck, carrying a Samson Tractor—both the truck and tractor are products of the General Motors Corporation. The owners of this truck and tractor have the largest industrial corporation in the world back of their investment.



These Cloverland Dealers will be glad to tell you about GMC Motor Trucks

Union Auto Co., Eau Claire, Wis.
Elsen & Phillips, La Crosse, Wis.
Service Sales Co., Green Bay, Wis.
A. G. Jennings Motor Sales, New London, Wis.
Highway Service Garage, Marathon, Wis.
J. T. McCann Co., Appleton, Wis.
Cloverland Garage & Machine Works, Manitowish, Mich.

Merrill-Buick Co., Merrill, Wis.
A. C. Homan Auto Co., Menasha, Wis.
Hathaway-Buick Co., Oshkosh, Wis.
Munising Motor Co., Munising, Mich.
V. L. Lipsett, Pickford, Mich.
Austin Lipsett, Sault Ste. Marie, Mich.
Larson & Asplund, Ashland, Wis.

J. A. Rummele Auto Co., Manitowoc, Wis.
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◆ DISTRIBUTORS FOR WISCONSIN AND UPPER MICHIGAN ◆



CLOVERLAND

MAGAZINE



REGISTRATION OF TITLE APPLIED FOR TO U. S. PATENT OFFICE

Published Every Month at Menominee, Michigan

VOL. XIII No. 4

MENOMINEE, MICHIGAN, APRIL, 1920

\$1.00 A YEAR, 10c THE COPY

Mr. and Mrs. Hereford—Grass Converters

By H. E. ALLEN

American Hereford Breeders' Association

WHEREVER there is plenty of grass and feed, which constitutes the foundation of a beef industry, such cattle can be economically produced to support a flourishing business.

Nature, having favored a country with this foundation, the industry will develop in accordance with the degree in which the farmers progress in their knowledge and practice of the two most essential factors of successful beef production, namely; breeding and feeding.

These factors are interdependent, and neither will give satisfactory results unless accompanied and supported by the other. The kind of food an animal possesses determines its value for feeding purposes while, on the other hand, it would be folly to expect the best bred animals to develop without plenty of feed of the right sort.

The selection of the cows for the breeding herd merits careful attention. This is of equal importance in grade or pure bred herd. Cows of large, roomy, vigorous type, having strong constitutions, as indicated by wide, deep conformation, with large chest and heart capacity strong clean cut muzzle and large nostrils, bright eyes, standing squarely on short legs, intelligent but gentle disposition, should be chosen as foundation stock. Cows of good quality, that do well on limited feed rations, as indicated by their uniform fleshing, loose pliable skin, glossy coat of hair, and in general, animals which are not coarse or rough in any respect should be selected for breeding purposes. If selected for a pure bred herd they

should adhere closely to all the breed characteristics of the breed to which they belong and if for a grade herd uniformity in beef type and an indication of preponderance of the blood of one of the accepted beef breeds is desirable.

Having selected the cows, serious consideration must be given to the purchase of a good bull. None other than a pure bred bull should be considered for any herd whether of pure bred or grade breeding. Probably no man in this enlightened age will deny the importance of having a good bull at the head of his herd; but too often men lack the courage of their convictions and hesitate to pay the price necessary to procure a really good bull. We often hear men say they would like to own a better bull but they cannot afford to pay the price. If these men would stop to consider, they would be forced to the conclusion that they cannot afford to use anything but a good bull though the price may be high. Any inferior bull is an expensive proposition at any price. To illustrate:—Pure bred calves by a good sire, when properly fed, will usually sell at two to three, or more, times the price obtainable for calves of inferior breeding. Examples of this are evident in many pure bred herds all over the country. Suppose that by using a good bull we could obtain \$25.00 per head more for our calves. It would take only a few calves to pay the difference in price between calves of the two classes and

more often there would be a \$100 or more difference in value.

In case the farmer is not breeding pure breeds the same principle holds true. Instances can be given of cattle which have won prizes at our leading fat stock shows whose dams were only grade cows, and which were dependent for their merit almost entirely upon their sires. Records show that practically all market topping steers are sired by good pure bred bulls. The work of Cassady & Son, Whiting, Ia., will illustrate the point in question. They have been using only good pure bred Hereford bulls on their herd of grade cows since 1939 and have been raising baby beefs for the last fifteen years with which they have invariably topped the market. They sold a load of nineteen head that averaged 1,120 pounds to Armour & Co., Chicago, last December that brought \$20.75 per cwt. Last year they sold their yearling heifers at \$100 per head.

The farmer who is to make his money out of cattle cannot afford to use a poor bull at any price and it would pay him many times over to borrow the money from his bank to invest in a bull of superior merit rather than to use a cheaper type of sire.

The bull must not only be a good individual of pure breeding but must be prepotent to be able to persistently sire good calves. In addition the cows must be prolific and regular producers to insure a large calf crop. Cows that prove to be shy breeders are a liability rather than an asset to the herd and should be culled out as soon as their fault is discovered. The calves need close attention at birth to avoid loss. Good care of the herd and close attention to the housing and comforts of the cows at calving time often means the difference between profit and loss. Then practical judgment should be used in selecting the best of the heifer calves to retain in the breeding herd and replace the cows that have grown too old or have

(Continued on page 42)



The Hereford Has All the Characteristics Needful to Success Under North State Conditions, and Foundation Herds Can Well Be Started With a View to Future Profitable Beef Cattle Ventures.



The Simple But Necessary Tools for Applying Formaldehyde to Kill "Smut"

THE FARMER who buys a cow for breeding purposes demands of the seller a guarantee that she is a breeder.

Does he demand the equivalent of his seed grain?

Does he demand that the grower of the seed produce a certified statement as to the percent of the seed that will grow under favorable conditions?

It is general observation that with nine farmers out of ten they do not.

Is it important that a uniform stand be obtained in the grain field? Can you get as good returns from the field if only 75 per cent of the grain you sow grows, as compared to 95 or 100 per cent? Recent experiments conducted at this station would indicate that in many sections seed oats and barley in particular are of only average germinable quality.

Of the samples of oats tested coming in from different sections of the state the average germination was 92 per cent, with a range of from 72 to 99 per cent. The seed oats testing only 72 per cent is entirely too low for planting.

Barley gave an average test of 87 per cent, with a range of from 75 to 96 per cent. This would indicate that much of our barley is of poor germinable quality.

With the high price of labor it is very essential that, after the neces-

sary work and expense of getting a field ready, only the best possible seed is used for planting, otherwise how can we hope to secure maximum returns from fields?

It makes no difference what kind of seeds you are planting, the following general rules will apply:

Clean your seed thoroughly, using a good fanning mill with plenty of air so that all light, immature seed, will be blown off. It is true that some light seeds will germinate, but they will not produce the healthy, thrifty plantlet that will a plump, mature seed.

After the seed has been thoroughly cleaned, take a composite sample by taking a part of the sample from all parts of the seed grain to be tested. Mix this composite sample thoroughly and count out 100 kernels. Now take an ordinary dinner plate, about ten inches in diameter and place in it two or three thicknesses of blotting paper. Wet the blotting paper so that it is soaked full of water. Then place the 100 selected kernels on this plate of blotting paper and place two or three sheets of wet blotting paper over them. Turn a second plate over this in such a way as to make it as tight as possible. Set away in the kitchen or other warm room and water every day by sprinkling water over the top blotter. In about five or six days the test is ready to read. By using 100

Good Seed—Good Grain

By G. W. PUTNAM

Crops Experiment, Mich. Agricultural College

kernels the reading is given direct, in per cent, each kernel representing 1 per cent. If twenty of the kernels fail to germinate you have only 80 per cent germination, and better seed should be secured if possible or the rate of planting increased to make up for the dead kernels.

If desired, these 100 kernels can be sown in an earthen box similar to the one used for starting tomato or cabbage plants. By keeping it in a warm room and well moistened, the plants should be up so as to read in about ten days to two weeks.

If we have taken the necessary steps to insure clean seed by use of the fanning mill and have run a germination test and know that the seed will grow, the next important step is the treating of the seed for smut. Smut of oats, stinking smut of wheat, and covered smut of barley are very easily treated by means of formaldehyde. This type of smut is characterized by producing balls of smut spores in the grain instead of producing the normal kernel. These smut spores scatter over the grain and adhere to the kernels. It is to destroy these smut spores that we treat the grain with formaldehyde.

Mix one pint fresh formaldehyde with forty gallons of water. Clean a place on the barn floor and sprinkle with this solution. Spread the oats in a thin layer (four inches) and sprinkle with the dilute solution of the formaldehyde. Shovel over and over until every kernel is moist. Add layer after layer, sprinkling as before. Two quarts of solution is enough to allow to a bushel. When all the grain is moistened, shovel into a compact heap, cover two hours with a blanket or canvas, then spread out to dry and air. Do not let the wet grain freeze, mould or sprout.

The grain may be planted as soon as it is dry enough to run through the drill. Make allowance for the slightly swollen condition when planting. One pint of formaldehyde will treat from fifty to sixty bushels.

The treating of oats with formaldehyde as a preventative of smut shows an increased yield per acre. 8.2 bushel, as demonstrated over a period of seven years of county agent work in thirteen different counties of the Upper Peninsula where 1,448 farmers carried on oat smut demonstrations.

These demonstrations covered an area of 14,427 acres. This actually made a profit to the farmers treating their oats, based on 75 cents a bushel for the oats, of \$6.15 per acre, or total of \$88,726.05. This in itself would pay 6 per cent interest on an investment in land values of \$102.50 per acre. Deducting the extra amount of twine needed to bind the bundles and the extra amount needed for threshing the grain, and the extra work in carrying the oats to the granary, there would still be a net profit close to \$6 per acre gain. It is estimated that within the Upper Peninsula annually grow 69,245 acres of oats. If all the oats planted were treated as has been demonstrated by these fourteen hundred farmers in the Upper Peninsula, it would mean an increase of \$425,376.05 to this crop; and to think that the money which the Upper Peninsula farmer is losing every year can easily be saved.

Further information on treating grains for smut can be obtained free by sending for a bulletin on the subject to the Director of the Experiment Station, East Lansing, Michigan.

Many states are reporting that the small grains are not of as high quality as they would expect. Cloverland, probably no exception, so it behooves every farmer who is planning on planting out any small grain this spring to get busy and make sure of his supply. Every farmer who is not sure of his seed should get in touch with his County Agent and secure his advice and help. If there is no County Agent in your County write direct to the Crops Experiment, Upper Peninsula Experiment Station, Chatham, Michigan.



Good Grain Fields Depend Upon Good Seeds, High in Germinative Quality, and Well Treated.



Pork on the Hoof—Almost Certain to Prove Profitable Because Production Has Declined in Every State Except Wisconsin, and Because There Is No Appreciable Decline in the World's Demand For This Meat.

Raise Hogs in the North States

By M. H. SCOTT

College of Agriculture, University of Wisconsin

THE general decline in hog-breeding throughout the corn belt, points to future profits for northern breeders. Wisconsin is the only hog producing state of importance that has not cut down its pork production.

It is estimated that there are 1,500,000 less hogs in the country than there were last year. With the exception of dairy cattle and mules, all livestock has decreased; but the swine industry shows the greatest slump.

Only in Wisconsin has the number of hogs and brood sows increased. Iowa, normally a heavy hog producing state, decreased her production by 15 per cent since last year. Wisconsin increased hers by 6 per cent during the same time. Other pork producing states of importance, including Indiana, Illinois, Nebraska and Kansas, have all diminished their swine production.

Statistics show that the per capita consumption of pork is 89.7 pounds in the United States, which represents a great consumption as that of all other meats combined. Due to the present rates of exchange, which makes our money so much more valuable than European moneys, foreign countries are buying very little pork at present. Exportations have been materially. If credit is extended to Europe, or if rates of exchange become more equalized, it is certain that hogs will make a tremendous demand on the swine industry of the United States.

The outlook for pork production in the north states is good. The corn belt is raising less hogs than usual, and with continued favorable conditions we will be able to realize on this general slump. Spring will be our opportunity to give the pigs the best of care. We are approaching the most important time in the care and feeding of sows—just before, during, and just after farrowing. It is during this time that great care on the part of the farmer will be most highly repaid. On the other hand if great care is not taken, there is sure to be more or less loss which will reduce the profits accordingly.

About five days before farrowing the sow should be placed in a prepared farrowing pen. The object of separating her from the others at this time is to acquaint her with her new quarters, so that she may be quiet and at home at farrowing time. The

farrowing pen should be light, well ventilated, clean, dry, comparatively warm and supplied with new, fresh bedding. The bedding should be well cut, and not too abundantly supplied. A pen that is six feet by ten feet is plenty large enough. Every pen should be equipped with fenders to protect the little pigs during and after farrowing. The fenders consist of two-by-eight inch shelves, built about seven or eight inches from the floor, along both sides of the corner in which the sow makes her bed. These shelves aid in preventing the sow from squeezing the pigs against the wall, or from lying on them when they are small.

The farrowing pen should be well sprayed with some good coal tar disinfectant before the sow is placed in it, and each week thereafter. This spray serves as a preventive measure against white scours in the little pigs, a disease which is contagious and which results in great losses each year to American hog breeders.

The ration, just before farrowing, should be similar to that previously fed, but great care should be taken at this time to prevent constipation. It may be necessary to supply, in addition to the ration at this time, such laxative feeds as bran and oilmeal, or in extreme cases a drench consisting of one-fourth pound epsom salts in a pint of warm water.

Gentle treatment of the brood sow at all times, and especially at the time of farrowing, is of great importance. The sow is often cross and bites or eats her pigs. This may be due to the lack of a balanced ration during the pregnancy period and, in order to satisfy her craving for protein, she eats her own pigs. She may also have a feverish udder, a condition which often follows constipation at farrowing time. A light application of kerosene, rubbed in well, will relieve the pain and pacify the sow. At birth pigs have long sharp teeth that are the cause of much discomfort to the mother and which have no useful function so far as is known. They are also the cause of pigs scratching each other in fighting. These teeth can easily be removed close to the gums, with nippers made for the purpose that can be purchased

at the hardware store.

For twenty-four hours after farrowing the sow should receive no feed, but plenty of warm water. Her first feed should be a thin slop of bran or ground oats, ground barley and a little tankage. The amount which is fed to her should be gradually increased during a period of ten days. After ten days or two weeks the sow should be given all the grain that she will clean up two or three times a day. The following mixtures are good for suckling sows:

1.

40 pounds ground barley or corn.
20 pounds middlings.
30 pounds ground oats.
6 pounds tankage.
4 pounds chopped alfalfa.

2.

50 pounds ground barley or corn.
35 pounds ground middlings.
10 pounds oilmeal.
5 pounds tankage.

3.

50 pounds ground barley, oats or corn.
50 pounds middlings.

Feed these rations with skim milk or buttermilk at the rate of two or three pounds to each pound of grain fed. The same mineral mixtures that are fed to pregnant sows should be kept before the sows and their litters at all times.

Pasture crops, if used properly, reduce the cost of pork production 20 per cent. Good pasture for all pigs during the growing period is of the greatest importance. Put the sow and her litter out on rye or blue grass pasture as soon as the snow is off the ground and growth has begun. Oats, peas and rape, or red clover should be used later—to furnish pasture from early June until a hard freeze occurs in the fall. Rape alone, and alfalfa are other pasture crops that are good during the summer months.

Plenty of exercise is essential at this time for both the sow and the litter. It keeps the pigs from becoming too fat, and from developing

thumps, which kills and stunts large numbers of pigs each year. One of the big advantages of early pasturage is that it furnishes exercise for the sow and her litter.

A "creep" is a valuable piece of equipment for the feeding pen, and will provide a place in which the small pigs can be given a special, highly protein, growing ration. The creep is a small pen, connected with the pen occupied by the sows, into which only the small suckling pigs can enter. The pen will make weaning a simpler matter and will provide protection for the little fellows against being hurt by the larger hogs at feeding time. If there is not an abundant supply of skim milk or buttermilk, it can be fed to the pigs in the creep, where it will be of greatest economic value.

The impression among many farmers of the northern states who have not tried raising hogs for market that the industry may not be profitable without plenty of corn is very erroneous. Experiments conducted at the Wisconsin College of Agriculture show that barley is a very good substitute for corn; in fact, barley was found to be more economical and the results were as satisfactory as with the corn-fed lot. Barley yields heavy crops in the north, so the feeding problem is only a choice of ration between corn and barley.

Most farmers in the northern states keep a herd of cows, but not a sufficient number of hogs to consume all the skim milk. Where the ratio of hogs is not proportioned to the dairy herd, the farmer is losing a large amount of money each year which should represent clear profit in pork.

Hogs of a strong type and good rooters are also an asset to farmers living in those sections where a specified amount of land clearing each year enters into progressive farming. Hogs will do a wonderful job in helping dig out the roots and brush, saving time and money and considerable hard work with the grub hoe. Rooting gives the hogs good exercise while they gather vegetable and mineral substance that makes them hardy.

Breeds are a matter of preference, but the farmer should be guided in selection by the experience gathered at the northern agricultural experimental stations, and the advice of his county agent.

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BAA, BAA, BLACK SHEEP

By M. N. KOLL

Secretary Northern Minnesota
Sheep Growers' Association

PERHAPS black sheep, or maybe black shepherds, have crept into the fold here and there, in the northern states.

They aren't black because they want to be. They were just made black by their surroundings.

They muddled around in black places; they didn't know just how to play the game. And before they got through, they came out of it all, a little shame-faced perhaps, and looking rather black to some of us who think we know and are sure we love, the sheep game as it is played in the North Country—and particularly if we play it on our cut-over tracts.

Let me give you, and request you to use, if you will, some information about this game that I have gathered in my capacity as secretary of the Northern Minnesota Sheep Growers' Association.

Let Ole Johnson, who lives within seventy-five miles from where I write, step to the stand.

Ole says that it is a fine thing to have some sheep up in this country, for clearing land. He says that in his sheep pasture he cuts down the biggest trees and in the summer the sheep take all the new sprouts that come up. In the winter he feeds them corn fodder, h a y, and bean straw. He says they are just wild after the bean straw. Turnips and rutabagas are also good feed for them. Salt is handy and in the winter he keeps both water and salt near for the sheep. He still has eighteen after selling twenty. He says he found that "tickle grass" is very injurious to them.

Alright, Ole, you are excused.

Will Alonzo W. Plaisted please take the stand and tell us what his experience has been with sheep?

Certainly! Started with seven ewes in the spring of 1917. Right off, the first spring, six of the ewes had twin lambs all of which did fine. With watching and care about every lamb can be saved after another spring. Don't believe that is possible, however, when they are left to run in the pasture by themselves at lambing time. Glad I started with a small bunch as I've been learning from experience what a sheep needs. Have averaged about seven pounds of wool per sheep but have had some that go to ten and twelve pounds even.

Roy Cook, please tell us your experience.

My sheep pay well. Lambs average about one and one-third per ewe. The fleeces average eight pounds. Seventy fleeces brought \$300. Sixty sheep and forty-five lambs summer-pastured on brush land well set with

blue grass. After stacking time the sheep were given the run of the fields.

Used a straw shed for shelter. Kept them on a separate lot from the other stock. Had one spring, when I wasn't careful to dip the sheep after shearing, and the ticks went to the lambs. Those affected went about twenty pounds underweight.

Roy thinks he'll dip them regular

the average was eight pounds to the fleece and one fleece went to ten pounds. He has

twenty-seven sheep.

Now comes a man who has been raising sheep for twelve years. Fred Dorn, how about it?

Sheep are the most profitable live stock on the farm. I have forty sheep. I provide only open sheds and pasture them on new and brushy pastures.

comes up to say that he was very nervous about the wolves on account of his sheep being in the thick timber and heavy brush, because he heard the wolves howling so much, but his fears were unnecessary. The wolves never bothered the sheep at all. He started with six and now has thirty-seven. George suggests that every farmer ought to have a flock, so that in the fall it would be easy to ship out in carload lots, which would help the market at its origin. He lost heavily

on his lambs at first, for the reason that his quarters were too small.

Fred Berg says that the sheep were the best paying proposition on his place. He averages one and one third lambs to the ewe.

He has a log shed and his sheep are out every day all winter long. He has cut-over land pasture and has seeded no tame grass in it. Feeds them wild hay and straw in the winter—with oats added during the breeding season.

Eleven years, says V. C. Taylor, and then find that sheep pay better than any other stock on the farm. He cuts over the land and then lets the sheep keep it down and then seeds it to clover and timothy. Feeds them anything he happens to have or can get for them in the winter.

Take the kind of sheep you like best, says William Pierce, after fifteen years of experience with them. He has fifty-five now.

Lambs average more per ewe in a small flock than they do in a large one. Have quarters that keep them dry and out of the wind in the winter and that is about all they want in stormy weather. Cut-over land—cut the brush and trees

down and burn the brush—and the sheep will keep the sprouts down. The only grass that will stand sheep is the native grass that will come up itself again. Timothy they will kill in a short time. Before you market the lambs turn them into clover pasture for about six or eight weeks. That will fatten them in fine shape without any grain.

It depends more on the man than it does on the beast, whether sheep will be successful or not, says A. O. Larson. He's had them for fourteen years. He always found it to be more his own fault than anything else when his sheep were lost. Tells about one summer he lost seven sheep. One day he was pumping water—ice cold—for the sheep when one of his neighbors came up and asked him whether he was trying to kill 'em. Then again he was advised that one of the sheep would die with great suddenness if he did not immediately put some pine tar in its nose. He did it and saved the sheep. He does not give the sheep



The Picturesque Log Barn, First Shelter for the Settler's First Flock.

after this.

George Savoy, what about you?

I'm in the second year of sheep business and find it is a good thing so far. I've had the best of luck. I let them run out all over the cut-over country just like the cattle. In fly time they stay in all day and go out to feed at night—no trouble at all. I have twenty-two old ewes, of which thirteen brought thirteen lambs; nine more are yet to lamb. Oats in the bundle does better for the sheep than clear oats. My sheep were in better condition on cut-over land than sheep I have seen on tame pasture, when I went out to buy some more. And get this—every farmer in the cut-over country is making a big mistake if he does not raise a flock of sheep.

Now comes a man who will tell you, from his five years of experience, that sheep is the only kind of animal that can live on poplar timber land with heavy under brush. Peter Eliason further says that he has not kept close track of his wool yield, but one year

Good care must be taken at lambing time to provide a warmer place. Brush leaves and weeds are eaten with great relish by the sheep. I lost more sheep from dogs than from all other causes combined.

This one will knock your eye out! Lets hear J. J. Waffensmith:

Started in 1907, with two scrub ewes and from them have bred up to a flock of 100 of the finest. Sold last year's wool for \$436, and lambs for \$856, making a total of \$1,292. Listen—use cutover land for pasture. If the brush is small it is good but when it is too large they will not eat it. Advise a man without previous experience to start with a small flock. Have a shed which is not warm, but is dry and has no draughts. Fed wild hay and oats straw last winter and a little oats to help make stronger lambs. A good lamb crop is what we're after. Gets about 150 per cent lambs to the number of sheep. What I've done to other man can do with sheep.

Speaking of wolves, George L. Snell

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They Become Regular Family Pets After Awhile.

cold water on a hot day in the summer time now—any more—no, free; and he keeps a bottle of pine tar round handy, too—yes, sirree, he does that. He also found early lambing a loser. He has sheared as high as fifteen pounds of wool from one sheep. He also made the discovery at to let the sheep run in the hazy wash all winter doesn't pay. He got only six pounds per fleece the spring after he had done that. He might have raised the average if he had imitated some cotton pickers to pick the wool off the brush where it had pulled off the sheep. He uses cutover land, seeded.

"Gauge the size of the flock by the amount of feed you can get for wintering them," he says. "It's easy to keep a large flock in the summer, but do not try to keep more than you have fed for in the winter."

Joel Ellestad came to Northern Minnesota in 1914 and started with forty sheep. He has 115 and says that no one should start on a cutover land farm without a flock of sheep. They are the best property he has. He wintered the sheep two winters with nothing but wild brush hay, with good results. Had only a straw shed the first two years, but now has a good sheep barn.

Why go on? I have a lot more such testimony. For twenty years I have traveled all over Northern Minnesota. In fourteen counties I have been on practically every trail on which it was possible to drive a horse in the summer time. My business was soliciting and negotiating real estate mortgage loans. Without knowing positively, I went with very good reasons for believing so, I think that for a long time I have been in contact with more of the pickers at their homes in the forests than any other man in the business in Northern Minnesota. I have slept on

their floors and in their haylofts when other room was not available. Hundreds of them got their first loan on their homesteads through me. That may seem out of place for me to state, but I am stating it in order to qualify as an expert witness on my own account.

While going over in my mind the foreclosures—which were comparatively very few—I can recall only one farmer who was also a sheep owner, whose farm was foreclosed. The fact that those who had a small flock of sheep seemed always to be able to meet their interest, stands prominently out in my twenty years of work in the real estate mortgage game.

Based on information I gathered in my capacity as secretary of the Northern Minnesota Sheep Growers' Association there were in 1917 about 1,600 sheep owners in fourteen counties in the so-called cutover area in Northeastern Minnesota. They owned over 30,000 sheep. As may be seen by the few who testified, and who I selected at random, they



Here the Farm Flock Is Housed in a Plain Board Shed.

are almost uniformly successful. They recommend beginning in a small way, and generally speaking everyone who has sheep recommends the keeping of a flock of sheep, on lands in the cutover area. They need very little attention except in lambing time and they need very little except a good shed to protect them from draughts and the cold, wet periods. They can find a living on the native grasses and brush, and if started on a small scale that is with a small flock—they will let enough sunshine in as time goes on to take care of the pasture for their own increase and for other stock as well.

In that connection I have in mind a young Dane. Peter had a homestead of 160 acres. It was wild cutover land. He built a modest set of log buildings, such as any beginner who had only \$14 to start with might attempt. He worked out in the woods during the winter and got a little money—less than \$250 as I remember it. He then bought twenty sheep and woven wire fencing

enough to fence twenty acres. He managed this by using a chattel mortgage on his sheep and using his credit as far as he could with the local hardware dealer. The next year he moved his sheep into the next twenty acres, which he again fenced with woven wire. The first twenty acres had been opened to the sunshine to such an extent by the sheep that he seeded it to tame grasses and turned in two or three cows which he had bought. He kept buying calves and putting them in with the cows, used the brush hook to help the cows out, and in two or three years had a very elegant brushless tract of twenty acres. The third year he fenced off another twenty acres. His flock of sheep, after selling some and selling the wool, helped him along nicely to get his land cleared, increased the utility of the land for pasture for the cattle and just last year, I met him again. He had sold his 160 acres—which he had owned about eight years—for \$3,500. His sheep had brought him another \$2,000 plus, and his cattle and machinery a little less than \$3,500 more. In a little over eight years he had increased his capital from \$14 to approximately \$9,000. Peter had an idea that sheep had a place on a cutover farm. His farm was not on a main road. When I saw his place the first time it took more than ten miles of driving on trails to go the six miles which he lived from town.

What's the program for cutover lands? Sheep on every farm! Not sheep only, but sheep. What my friend Peter Bart could do can be done by anyone else who is willing to work on a tract of cutover land. Peter was not a physical giant either. He was only a little fellow, weighing about 150 pounds and in poor health—in fact, that was one of the reasons

(Continued on page 43)



Old Man Buck and the Kids.



By and By They Earn Enough to Support This Type of Barn.

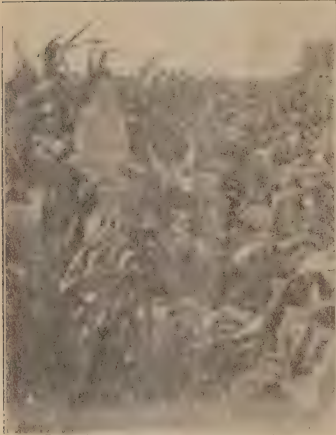


And a Few Years Later the Owner Builds With Concrete.

Getting At the Pep in Commercial Fertilizers

By ROBERT AMUNDSON

Agricultural Agent Oconto County, Wisconsin



Silage Corn on a Fertilized Plot

HOW long is a string? It is just as easy to answer that question as it is to say whether fertilizers pay or not.

To use them just because they are labeled "Fertilizers" does not pay.

Used for a purpose and with regard for the object to be attained they do pay—and pay big.

By experiments and hundreds of actual field tests the Menominee River Sugar Company has found that in the majority of cases, a heavy potash fertilizer gives returns far in excess of the money expended. It has been demonstrated that certain kinds give good returns when used on grains and meadows.

Our experience with their use is limited largely to potatoes and corn, and for that reason we will confine our discussions to these two major farm crops: particularly the first—potatoes: "the settlers' insurance—the farmers' pay envelopes."

Three essential substances—nitrogen, phosphorus and potash—are the limiting factors of plant growth. No chain is stronger than its weakest link; and no soil is more productive than the least abundant of these is able to supply it with the necessities of life.

Food, clothing and shelter are necessary for man to live in our climate. If he had a king's palace, but no food or clothing, he would soon die; or if he had food alone, he could not survive. A plant, if deprived of one of its necessities, soon turns sick and if it does not die, it stands a living example of lack of "constitutional vigor."

When the northern states were first settled by lumber men, it was not expected that crops like potatoes could be grown; as the country became cleared up and the sun hit the ground, and as it dried up earlier in the spring, it was discovered that potatoes did very well. After a time corn of the early varieties was tried out, and found to do fairly well, but was often caught with the first early frosts.

Now conditions have changed. Corn is grown successfully, although even now the earlier varieties are preferred because of the "short season." It is not so much a question of "short season" as it is a question of "short rations" for the corn. It is necessary, in order to get good corn, to keep it moving; and to keep it moving, it must have proper rations. Like an army "it moves on its stomach," and will stand a lot more grief if well fed.

It is questionable whether it is policy to attempt to feed the corn on commercial nitrogen all through the season; but it does pay to put some of this available growth producing elements where the plant can get at it when it starts off.

"A job well started is half done."

This is true of the corn plant. Give

it a good start in the spring and half your troubles are over. The nitrogen in a commercial fertilizer is like mother's milk to a calf.

Edward Cisar of Peshtigo, Wis., writes: "All through the growing season the fertilized corn looked as though it were planted two weeks earlier than the remainder of the corn."

Frank Wetzel, Gillett, Wis., says: "Corn matured 20-21 days sooner than corn planted one day later without fertilizers."

The phosphorus in the fertilizers helps to fill the kernel and will make hard corn.

Without a doubt when used at the rate of 300 pounds per acre, 150 pounds in the row on corn, a fertilizer with a high percent of phosphorus may make the difference between a crop and a failure. It is one of the things that makes good ripe corn possible.

While commercial fertilizers help to ripen and make a plump corn, still more striking examples are those of potatoes, grown with the use of this stock yard refuse. Potatoes, like root crops, demand an abundant supply of potash. While it is desirable that they keep growing after they are planted, the northern "short season" is not prohibitive for this crop.

Francis Kerr, Oconto, Wis., used a 3-8-6 fertilizer—which cost, in the spring of 1919, about \$80 per ton—at the rate of 1,000 pounds per acre on six acres of early Ohios. With no other fertilizer, this gave him a yield of 150 bushels per acre. The potatoes were dug about Aug. 27 and put on the early market for \$2.00 per bushel. He used the same combination on his late potatoes (Rurals) which gave about the same yield. At one edge of the field, where the fertilizer ran out when planting, five hills were dug and the potatoes held in two hands!

Cota Bros., Oconto Wis., tried six dollars worth of potato fertilizer on six rows. Those rows when dug,



Commercial Fertilizer Make These Potatoes

yielded three bushels more per row than the unfertilized. This, with potatoes at \$1.50 per bushel, gave a 50 per cent on the investment.

J. I. Ethridge, manager of the Oconto Company farms, used 500 pounds 3-8-6 fertilizer with potatoes on what was considered a run out piece of land. The potatoes were planted July 7th and yielded about 150 bushels per acre. Early Ohios from this same field won first premium at the state potato show in the individual class. He would not think of planting potatoes without it.

O. B. George had one acre of new land. He had no manure, but pinned his hopes on 1,500 pounds of 3-8-6 commercial fertilizers. The field, a trifle over one acre, gave a yield of about 450 bushels. This was certified and is now about all sold for \$3 per bushel, a gross return of over \$1,350 from a single acre!

(Continued on page 45)



Four Hundred Pounds of "2-12-2" Fertilizer Was Used by George Bell, Oconto County, on the Right Hand Half of This Field; No Fertilizer [to the Left. Note Result]

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These Are Typical North-Country Apiaries, and Are Illustrative of the Success Where Basswood, Clover and Successive Flora Provide a Bountiful Supply of Nectar
(PHOTOS BY COURTESY OF DEPARTMENT OF ENTOMOLOGY, MICHIGAN AGRICULTURAL COLLEGE)

WE ALSO KEEP A BEE

By HENRY A. PERRY

THERE are two reasons for the great and rather sudden impetus that has been given the beekeeping industry in the Great Lakes basin, and these same two reasons are influencing commercial beekeepers of the east and the central states to seek locations "up north" in a region that had long been considered so cold that bees could not live.

Within the last year Northern Michigan, Northern Wisconsin, and Northern Minnesota have sprung into almost national prominence as an "ideal bee country." A few commercial beekeepers moved their yards into this region last summer and fall, and thousands of new colonies will find homes the north this year.

No matter what a country is, irrespective of soil and climate, there is sure to be found among the sturdy pioneers men and women bent upon doing out one or more of the industrial activities that had been a more or less important factor in their community environments back home. So here and there in widely scattered places a farmer or his wife, or some person living in a small lumbering village or mining camp, made an investment in a colony or two of bees. Some colonies died during the winter—survived to death. Others came through in excellent condition, multiplied with astounding rapidity and crops of honey were harvested that caused the owners to be amazed.

Quite naturally, those who lost their colonies pronounced the enterprise a

failure, never stopping to ascertain the cause, and scoffed at successes reported perhaps a hundred miles distant. They declared "it can't be done" and dismissed beekeeping from their minds.

Few, if any, of the successful pioneer beekeepers tried to analyze the elements that contributed to success—they merely bought additional supers for their increase each year, and smilingly pocketed the increasing profits each season.

Thus beekeeping in the Great Lakes basin was maintained for a generation, few persons being interested in honey production, except in the fall of the year, and then they bought their winter's supply at a bee yard, if there happened to be one in their community, or from a peddler living miles away who made annual house-to-house visits with samples of the product. As there was a standing market at home or nearby for honey, those who kept bees continued in the business, but there was comparatively little elaboration of the industry until the closing year of the world war.

Beekeeping in other sections of the United States, although on a commercial basis, had not been a very alluring enterprise, with honey selling at 13 cents a pound, until unprecedented demands for sugar to meet war requirements placed heavy restrictions upon the use of sugar. Honey being the nearest substitute for sugar agents for manufacturers of confections and

cookies were sent scurrying over the country to buy up all the honey available, and the price of honey began to move up. With advancing prices came a new interest in beekeeping, and the little white boxes in the orchards, back yards, and under the shade trees, assumed banking significance. Bees work for nothing, put in long hours without complaint, and rustle their living and that of their owners in the free air of America. Profits were big and colonies could double and triple each year.

When a business demonstrates that it is profitable others want to get into it, and those already in it give it more care in order to increase profits. Bees were studied as never before, bee journals and periodicals took on new life and their subscription lists grew while the texts teemed with expert information on beekeeping. Bee books that had burdened the shelves of book stores found purchasers. Bee statisticians got busy and to the amusement of beekeepers throughout the country, it was learned that northern bees produced the most honey per colony of any in the United States. Many beekeepers in milder climates refused to believe the reports, but experts, knowing the figures to be true, set about diligently to learn the reason, or reasons, for the remarkable successes scored in districts that had never been heard of as a "bee country."

The two reasons for the success of

beekeeping in the north were found to be these:

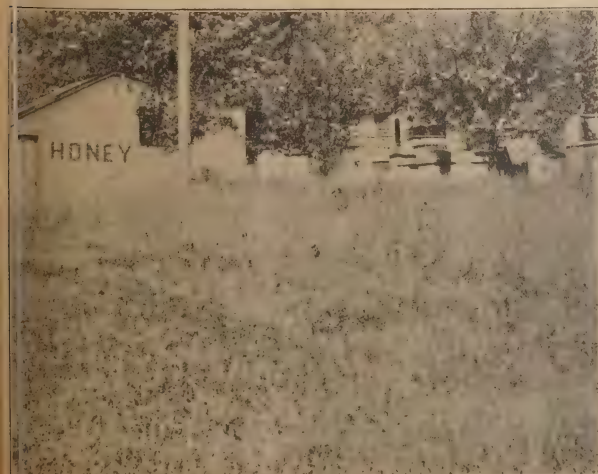
First, the long, steady winters. Second, the abundance of early flora that insured a successful brood-rearing season. Added to this early flora was a successive crop of nectar producing flowers, so that the honey flow was continuous until late fall.

The reason the long, cold, steady winters of the north are more desirable for successful beekeeping than elsewhere, is very plain to the practical beekeeper. In climates where cold days are sporadic and warm periods intervene, the bees note the rising temperature, become restless, and not infrequently move out of their winter quarters to the open air. Such moves are disastrous, and even if the bees do not escape, the continuous unrest and agitation in the hives are dangers dreaded by beekeepers.

In the Lake Superior district when winter arrives it remains until spring. At no time does the temperature reach a point where the bees will become uneasy and start a revolt against being kept in closed quarters. A constant temperature of about 40 degrees or even lower, will keep the bees quiet all winter. In fact, they are content to remain in an almost dormant state until the awakening with spring.

Under these conditions, if properly fed and cared for, strong, vigorous colonies emerge from the bee cellar or winter quarters in the spring, physically prepared for the brood-rearing season. They commence flying about

(Continued on page 41)



An Iron Mountain, Michigan, Apiary—



and the House Where Supplies Are Stored

CLOVERLAND MAGAZINE

BETSEY—Queen of the Northland

Just Cow—the Dairy Cow—Will Bring the Final Answer to That Oft-asked Question: "How Can I Best Succeed on My Cut-over Farm?"

By F. W. LUENING

CATTLE will range the cut-over country. They will fatten there, and will top the market—when men learn how to range cattle on cut-over land.

Sheep will thrive in this same country. They, too, will top the market, and their clips will surprise the sheep men of other places—when men learn how to handle large flocks in the cut-over country.

But, whatever beef cattle and sheep may do, the ultimate answer to the oft-asked question, "How can I best succeed on my cut-over farm?" will come from the dairy cow. The dairy cow is the answer.

Betsy is Queen of the Northland.

When the settler has cleared the first five acres, his best insurance against failure is the dairy cow. As the acreage grows, so will the dairy herd. That herd will bring him an income every month, in one form or another. It may be cash, and it may be just milk—for himself and his family. In time, there will be cream shipments, there will be skim milk left on the place, and then there will be hogs to use the skim milk. Gradually, a dairy farm, with all its diversified side lines, will grow up.

The dairy cow has brought success to the agriculture of Michigan, Wisconsin and Minnesota. The same cow has made Wisconsin the greatest dairy state in the union. Her products run into billions, and take first place in the industries of the commonwealth. And what the dairy cow has done for the southern half of these states, she will do for the northern half.

Sheep grazing will be successful in each of these states. Large flocks will range, and in a year or two large ranches will be in operation. Small flocks already are extremely successful.

Gradually, as more lands are cleared, and the brush line is pushed back, dairy cattle will be substituted for sheep. There will be men, of course, who will remain sheep growers. They will be eminently successful.

But, for the farmer and settler, taken as a whole, the dairy cow will offer the surest and final medium toward success.

Beef cattle will be successfully ranged in large herds on many of the lands in the Great Lakes basin, but they, too, will be most successful in the hands of a few men, and they, too, will pave the way for the dairy cow.

The north country ought to encourage cattle and sheep grazing. It ought to point out the correct methods to follow in these fields of live stock endeavor, but in the end, the north country should turn to the dairy cow. Dairying is the ultimate destiny of the entire Great Lakes basin. How well dairying works out, even in the newer sections of the basin, is illustrated by many men who have attempted it. Up in Big Bay, Michigan, is the Bay Cliffs Stock Farm. Registered Guernseys are bred there. Jay B. Deutsch is the owner of this farm. In January, he said:

"Some months ago, I started a farm for the purpose of breeding thoroughbred Guernsey cattle. I have completed the building of a large barn, and my herd at the present time consists of eighteen females and two males. Between now and next spring, I will probably increase this herd to forty head. Criterion's Betsy of Bellview, recently completed a year's test, making 8,503.71 pounds of milk, and 403.29 pounds of butter fat. This

placed her in class E in the advanced registry, and this is surely a creditable showing for a young cow.

"Dairy cattle can do as well in Northern Wisconsin and Michigan as they can in Southern Wisconsin—or in other words, as well as they do in climates generally considered a little warmer."

How dairying has crept into the north country, and how successful it is, might be illustrated by many repetitions of experiences similar to this. It would, however, be needless repetition. Dairying needs no illustrations, and no arguments.

It is true that in unsettled sections the market for milk is not what it ought to be. That, however, is a temporary situation. When settlement is carried out in a colony way, and when groups of families establish themselves in any district, then markets promptly follow them. Milk can be shipped long distances, and distributors are constantly reaching out for better supplies. Creameries and cheese factories quickly follow the supply. Co-operative creameries are successful if properly managed.

It is, of course, true that the single settler, or the small group, away from the market, has difficulty at first in meeting the marketing situation. Even so, however, it pays the settler to keep one or more dairy cows. Before he has built up a herd, the market will have followed him. In the meantime, the products of the cow give him the best food he or his family can ever hope to use, and these same products of the cow make possible the feeding of one or more brood sows, and their increase.

Often, too, these same products help make the poultry flock successful, and spell the difference between vigor and

weakness in young chicks, or ducks, or geese, or turkeys. So, even when milk cannot be marketed in its original state, it can be marketed in the form of pork or dressed poultry.

In the meantime, the dairy herd is gradually increasing. As years go by, and markets develop, the herd achieves the paramount place in the new farmers' activities. It begins to produce a monthly milk check—and nothing is better than a steady and regular income, upon which to continue expansion, and development.

This very check, too, makes dairying itself a pleasanter occupation. As the herd grows, and the check grows with it, the farmer is enabled to purchase the improvements needful to successful dairying: the right barn equipment, first of all; then a milking machine, and then the other modern adjuncts to dairying to help take the drudgery out of the work.

If there is an objection to dairying, it lies in the irksome task of milking regularly every day, 365 days a year, and twice during each of the 365 periods. There is no Christmas holiday, no Fourth of July lay-off, and no Thanksgiving rest for the dairy farmer. But modern inventive genius has given him the milking machine, and has given him barn equipment, and utensils that minimize the work. The dairy herd has given him assurance that if he will sacrifice, the herd will make him successful, will pay for his farm, the comforts and luxuries that go to make a happy farm life, and will maintain the fertility of his soil for all time, leaving him richer acres each year, and a constantly increasing capital in the form of producing cows.

When the settler or farmer makes a beginning, it should be the right beginning. This means well-bred dairy

cattle. It need not mean registered cattle. The first cows need not necessarily be thoroughbreds. The ought, however, be good grades. It is just as easy, and only a little more expensive, to start with a good grade cow, as with a poor scrub. The turns will be greater from the very first. And later on, as the herd increases, the farmer will not be forced to cull out, and practically begin a over again.

In a new country, it also is vital necessary that thoroughbred bulls be used. These bulls ought to be purchased by some sort of "community arrangement"—unless, of course, there are one or more farmers willing to make the expenditure for high class stock. Otherwise, it will pay an group of farmers to pool their resources and acquire one or more thoroughbred bulls for the use of the community. It is very much better, cheaper, to do this at the very beginning—when the first dairy cows are coming into the country, and while the first foundations of future dairy herds are being laid. It is, at this time, that the tendency toward scrub is the greatest. Someone buys a cheap cow, simply because she is cheap. Others follow his example. Gradually numbers of cheap scrubs have crept into the country.

In a short time the breeding question comes up, and perhaps somebody buys a scrub bull at the nearest stock yard. The bull is used, calves are born, they grow to maturity, and the prove to be even poorer scrubs than their parents. The community struggles along, just manages to make end meet, and individual farmers lay by a surplus only after the greatest sacrifice. Then gradually, they realize that they started wrong, and they must begin all over again. The cull out their herds, buy new bulls, and after many years, get back on the basis that should have been their at the beginning.

On the other hand, if the first cow purchased are good grades, the cost will be only a few dollars higher. Then if a group of farmers get together, and buy a registered bull, their needs will be adequately and properly met for a number of years. Their herds will be increased, and the increase will be valuable stock—not just scrub stuff.

In time, each farmer will have a herd sufficiently large to warrant the keeping of his own sire. When he reaches that state, he will want a sire himself—pure-bred and registered. His foundation herd will be bred up to a high standard of excellence, and the pure bred bull which he acquires will rapidly place him into a class with the best dairy farmers.

It also is highly necessary that tuberculosis-free dairy cattle only be used in a new country. It is the height of absurdity to start with diseased stock. When the first cow is purchased, the buyer should insist upon a test, proving that the cow is free from tuberculosis. If he adds to the herd, he should always be sure that he is not adding diseased cattle. He should see that these cattle are kept in quarters where fresh air always prevails. Fresh air is the best guarantee against tuberculosis. Fresh air will not cure the disease, but if the herd is free from it, and is kept away from foul, cramped quarters, the chances of contracting the disease are reduced to a minimum.

As the herd grows, the dairy man should himself see that the test is applied annually. Tuberculosis may start at any time. When it does, it



Quietly They Are Building the Agriculture of the North—Following Close Upon the Heels of Sturdy Pioneer Beef Herds and Flocks of Hardy Sheep.

CLOVERLAND MAGAZINE

in very rapidly go through the entire herd. If testing is neglected for period of years, the dairyman may take up, some day, to an infection that has taken hold of every animal. He may then lose his entire herd, together with all of the painstaking work of years, in building up that herd, and a market for its production.

Dairying then, is an aim toward high every man in the northern states can safely look forward. He must, however, start with good grade stock. He must use thoroughbred, gistered bulls, and he must see that his new herds are free, and kept free, from tuberculosis.

Dairying in the North Country is no different than dairying in anywhere else. It should, as indicated, be started in a small way, unless the settler has cleared land that insures an abundance of feed. Two or three dairy cows, of course, be kept in inexpensive buildings. That is, little more than log sheds are necessary. While northern winters are rigorous, the norm that temperatures are extremely low, and that snow is piled high through the winter months is erroneous.

The traveler who leaves Illinois, for instance, in mid-January, and travels to the shores of Lake Superior, will find but little difference in climatic

conditions or Northern Illinois. The fields, in the meantime, also are enlarging. Clover should be a standard crop. It is a natural crop in the north country. It is the best possible hay crop at this time.

In future years, alfalfa may replace it. So long as the land is comparatively new, clover seems to offer the dairyman the best and most reliable supply of roughage.

Corn can be grown in almost every county. It will not always mature, since early frost sometimes prevents that. However, there are few sections, indeed, that will not provide a corn crop adequate for silage purposes. In the meantime, experiments with sunflowers indicate that an excellent substitute for corn silage is offered by this plant. Some northern dairy farmers also have made an un-

usually good silage with clover, cut at the hay stage, just before reaching full bloom, and filled into the silo to a depth of about two feet. On this they have filled about two feet

of straw; then two feet of clover, and then more straw; and so on to the silo's capacity. They say that when the silo is opened for winter feeding, they are unable to tell which are the layers of straw, and which the layers of clover — the whole mass has become ensilage, and all of it is equally succulent. Those who have tried this plan claim that the straw absorbs the excess moisture in just the right quantity.

The method is not offered as fully tried out, under scientific experiment. A few practical farmers, however, claim that it is successful.

Root crops make a fine growth in the North Country. They of course offer many forms of feed for dairy cattle. There is some objection to their use because of the difficulty of preparation. Slicing roots takes time and their nutritive value hardly warrants the use of many of them. Soy beans, however, as well as oats and peas, are

readily grown. Small grains also thrive, and can be used as ground feed.

It is well worth the money, to equip the growing dairy farm with a grinder. This is especially true if tractors are used. The tractor is a power unit, and readily takes care of a grinder, if the right one is selected. Grinders, of course, require a lot of power. Nevertheless, every good tractor will successfully operate a grinding mill, provided that mill is the right type to use with the particular tractor. Ground oats and peas make one of the best grain rations procurable, if properly balanced with such other ground feed as can be secured, or balanced in the general rations.

Marketing conditions will require further attention in the North Country. A few men who have chosen

friends locate with him. In one form or another, group settlement is the only right settlement in a new country. This may mean that individuals buy wild land near established communities. It may mean that companies financially able, are organized to build communities. Or it may mean that ten or twenty families get together and jointly build their new farms. The particular plan that is chosen may be unimportant. It is important, however, that the lone individual keep away from wholly isolated areas.

Successful dairying will depend quite as much upon proper location, therefore, as upon anything else. The prospective dairyman should study the various colonization plans.

Those who have given the subject most thought are pretty generally agreed that "farm planning" is quite as important as city planning. This may or may not be true in old and settled communities. It certainly is true in new districts. And farm planning will be well worth the thought of the prospective dairyman in a new country. The planning should begin with a view to making dairying successful, from a money standpoint. And it is certain that money will most quickly be made in a neighborhood where numbers of men have the same



And This Is the Sort of Farm Home Betsy Makes Possible in the North Country

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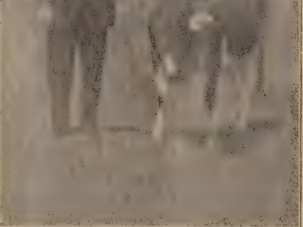
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isolated locations have complained that dairying is impossible. They have had no difficulty in producing the milk, but a lot of difficulty in disposing of it.

In such locations, time alone will remedy the trouble. In the meantime, the farmer, if located a way from any center of population, must go into something other than dairying, or must use his milk as a feed for other live stock. He can, of course, skim the product of his dairy herd, and feed the skim milk to hogs — although even this is not always satisfactory.

Therefore, although dairying is advised in the north country, it is not advised on a hopelessly isolated location. It is not wisdom to select such a location in the first place. There is no real reason for getting entirely out of touch with markets. It is better to locate near a community or at least near a group of farmers.

It also is important to locate on a highway, or begin immediately to construct a highway. Furthermore, if a more or less remote location must be chosen then the newcomer should see that a group of



Criterion's Betsy and Her Owner Jay B. Deutsch of Bay Cliffs Farm

general ends in view.

The dairy districts, therefore should be deliberately "planned." And the best first step toward a plan is for the new dairyman to find others, like himself, and with them begin his new venture. In other words, "group" the dairy farms. Thus grouped, the production becomes better worth the buyers' attention; feed, if it must be shipped in, can be bought in larger quantities and at better prices; markets can be developed; roads can be constructed; help can be given, one to another; and, if need be, a co-operative creamery can be created.

The soil, the climate, and the opportunity is there, in the new north country. A plan is needed, and consistent work.

It has been demonstrated that where settlers are grouped all make better progress. They may help each other at harvest time, advise with each other on problems confronting them, and if they are not prepared to commence with pure bred dairy cows, they may collectively buy a pure bred bull for use in the community. When this bull has served his purpose in one community he may be traded to another community, and in this manner, good herds will soon be built up in each settlement.



Criterion's Betsy of Bellview; 8503.70 1. of Milk, 403.29 lbs. of Butter Fat

conditions. He will find almost as much snow in Illinois as in Northern Wisconsin or Michigan. He will find almost the same temperatures prevalent in the two places on the same days.

Suggestion and imagination play a large part in our conception of climate. As men travel northward, they expect colder weather and more snow. And consequently they THINK the weather is colder and the snow deeper. A careful study of weather records will indicate differences of but a few degrees in an area of considerable length, north and south.

Naturally, north-country dairying differs from the dairying of the extreme southern states. It doesn't differ, however, from the dairying of the more successful and most prosperous dairy sections in the United States. Water shelter must be provided, and it must be warm shelter—a good tight north wall, with reasonably tight east, west and south walls; but sufficient ventilation to maintain the health of the dairy cattle. The first building should be inexpensive. As the herd increases, and as new land is cleared, there will be reason for increasing the area and expense of the building. There will gradually come the typical dairy barns of Southern Wis-



By and By They'll Be Yielding Regular Monthly Milk Checks

COVERLAND

MAGAZINE

The Illustrated Monthly Magazine of Greater Cloverland

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THE ANDREWS PUBLICATIONS,
313, 315, 317, 319 Quimby Avenue,
Menominee, Michigan

Entered as second-class matter January 27, 1916, at the post office at Menominee, Michigan, under the Act of March 3, 1879.

Subscription price, postage paid, \$1.00 a year in advance.

Advertising rates on application.

Make all remittances to Cloverland Magazine, or to R. M. Andrews, Publisher.

APRIL, 1920

Neighboring

MEN and women cannot live alone. They aren't built that way. Enough loneliness warps the mind. Hermits usually go crazy.

Humanity hasn't consciously packed itself into cities. It has, rather, unconsciously sought company. One man wanted to be near another. The tendency is as intuitive as the flocking together of the birds.

Folks on the farm need company. They need companionship. They need neighbors. Without them, they become mentally cramped. Something happens to their brains. They become silent, morose, unbalanced. Children, on farms that are badly isolated, are mentally stunted. They never know the wholesome influence of contact with others.

Every American frontier might tell us tragic stories about men and women who drifted too far into the wilderness. Sometimes the men come through with a fair degree of success. They have their work, and they combat with Nature's forces, and these help a little to fill the void. But women—pioneer women, far away from human companionship, sympathy, and understanding—deserve the world's compassion.

In these days there is no longer need for isolation. In a new country, land owners and state officials ought to use their best efforts to prevent it. Neither individuals nor single families should be permitted to go too far from the bounds of civilization. If a wilderness must be penetrated, then let groups of people band together. Where new farms are in prospect, let groups rather than individuals work out their destiny.

Success is much more likely where ten families settle on the same trail or road, and on ten adjoining tracts of land, than if these ten families are scattered, wide apart, and each in a lonely wilderness of its own.

Neighborhood is a mighty important factor in human success—especially farm success. Even in settled communities, we find families who remain much to themselves. It is in such families that discontent finds a place; a surly, dogged home life is developed. Dissatisfaction sows seeds in the minds of such families' children. As soon as these children are old enough, they get away from the depressing isolation.

They seek the town or the city. There are many reasons why boys leave the farm. It is true that hard work, and small returns are, perhaps, the biggest factors. But isolation has played a bigger part in the "back to the city" movement. Many a farm boy would never have dreamed of the city life had he had a really complete country life; had he known his neighbors; met the boys; gathered now and then around the board in other homes; had he brought his friends to his own home, both in early youth and when he approached manhood.

The happiest community life is rural community life—when it is properly developed. It offers all the wholesome influences of human contact, without the unwholesome factors that

creep into complicated city life. But only when broad, generous, thinking men and women get behind the life in any community can its wholesomeness be brought to the surface and made to radiate into every life within its sphere of influence.

Birds

THE hard headed, practical farmer doesn't waste much time on the bird life around him.

During moments of leisure, we may, nevertheless, give these feathered friends of ours a passing thought.

Ornithologists tell us that without birds agriculture would be impossible. In other words, destructive insects multiply with astounding rapidity. But because there are millions of birds to prey upon these insects, they are kept within bounds. They destroy crops here and there, and sometimes do immense damage. If, however, it were not for the birds, they would eat up every living green thing as soon as it showed above the earth's surface.

So the practical hard headed farmer owes the birds something more than he generally gives them credit for. It will pay the farmer to observe the work of the birds.

During the winter the chickadees move through his orchards. They are digging out insect eggs, and larva. In spring, robins and bluebirds appear before the last snow is off the ground. They, too, find grubs, insect eggs, and the first adult insects to mature under the spring sun.

So the birds begin their work of crop-saving before the plow turns its first furrow. Martins follow the robin and bluebird. These birds take their food on the wing. They capture, in the air, the insects that the early spring sun has developed. Warblers, in great flocks, then move north across the country. These birds are among the most assiduous destroyers of insect life. They move almost silently across the trees, working from both the top and the bottom of the leaves. They collect thousands of minute creatures, that would, if allowed to live, ruin acres of growing vegetation.

The tent caterpillar, and the tussock moth, have actually stripped entire forests of their foliage; and yet these terrifically destructive pests are successfully combated in territories where birds really abound.

Birds, however, like other wilderness creatures, suffer terrific destruction at the hands, or with the connivance, of men. Their natural nesting places are destroyed, as we clear our land and strip our fields of growing trees. Cats are sheltered on every farm, and each cat collects its quota of birds every summer. It is conservatively estimated that every cat averages fifty birds a season.

The farmer can well afford to reduce the cat population, therefore, and let his boys set up a few bird houses to take the place of hollow trees, that have gone with the forests. He can afford to let hedge rows grow in convenient places, and he can even afford to look up from his work now and then, and watch the birds as they destroy insects detrimental to agriculture.

Work and Play

CONSISTENT work and wholesome play are the only known roads to happiness.

There are no short cuts.

Certain peoples recently have tried to find other ways toward contentment. Certain dreamers have outlined schemes that will abolish work, and make the world gloriously happy. With these schemes as a basis, governments have been overthrown, chaos has followed, and a lot of human blood has been spilled.

Gradually, as the wave of excitement and the clouds of battle pass away, these same peoples recognize that they are not getting anywhere.

They find that they have destroyed a lot of property. They find that no idealistic theory will rebuild this property. They recognize that nothing but work—the same old-fashioned hard

work—alone will construct buildings, till acres, sow crops, and maintain communities.

In fact, thinking people among them recognize that they could not even have had their fling if others hadn't remained at work. The theorist and idealist can eat only so long as somebody, at plain hard work, provides food.

The food and most of the world's hard work, during the past few years, has come from the American farmer. He has maintained the prosperity of his own country, and has made existence in other countries possible. It was not the Liberty Bonds he purchased, nor the sons he sent to the front that kept the world moving. It was just the plain hard work that the old man did, back on the old farm.

While he worked, the old man didn't always wave the flag, nor did he talk a lot about his own patriotism. Today in the minds of many an American farmer, there has grown a doubt about the sincerity of the fellow who HAS been waving the flag, and who HAS been loudly announcing his own patriotism.

Many an American farmer is wondering about real Americanism—does it assay higher in certain patrioteers, who are all swelled out of shape, and who bubble over with words, but who show very few concrete achievements; or is there a fair amount of it back on the American farm, where no wordy effort has produced the food and clothing that provisioned the world's armies, and that, ever since, have provisioned an upset universe?

Who, now, is entitled to a period of wholesome recreation? Is it the conversationalist, or is it the real worker? Is it the manufacturer, who is paying half-million dollar surplus profit taxes; the organized laborer, who has been striking periodically; or the farmer who has been toiling incessantly?

As a matter of fact, recreation is possible in but limited amounts. The world needs work more than it needs any other one thing. The farmer is continuing that work. Labor must similarly continue, and capital must likewise get down to plain hard plugging. When the farmer is working on similar bases—as the farmer is working today—then matters will quickly adjust themselves, and every group will find time to play.

Bogus Seeds

THE average farmer carefully calculates the returns the investment in an implement or tool will bring before purchasing. His frugal wife tries to balance the receipts from butter and eggs with expenditures for staple groceries, dry goods, and a new piece of furniture. Both are economists of wonderful versatility, planning out every activity and investment so that ends will not only meet but show a small excess in one important item. That is in seeds.

The agricultural colleges, the county agents, the scientific farmer, have preached seed testing for many years as the greatest insurance against crop failures, but the average farmer continues sowing seeds because they are seeds without thought of what the harvest shall be.

Bogus seeds may be gathered from his own granary or store house, and are still more apt to be purchased from seed concerns that make it more of a business to sell seeds than promote crop success. Weather conditions may have prevented proper maturity of seeds and they lack adequate germinative qualities to grow hardy plants, although the seeds may appear healthy and sound, and to possess vitality to create new life. This defect may be determined only by testing. There are several simple, inexpensive methods of testing seeds, any one of which a farmer may use and accurately determine the seed values before planting. The test pays big returns, for it insures against crop shortage, and often crop failure. If the seeds test low in germination the farmer must use more to the acre—proportioned to the percentage of good seed. That is all there is to it.

No matter how good the soil, how

favorable the season, if seeds are low in germination, the farmer will not have a good crop, and it may be failure. A few minutes time and virtually no outlay of money stands between crop success and crop failure.

The Farm Bureau

THE farm bureau movement is being ahead as its usefulness is being demonstrated. It has made constructive progress, but the ultimate success of the movement depends entirely upon the manner in which the national, state and county organizations are managed and conducted. So far, the farm bureau movement has just claimed public approval and if the preliminary conservative policy is adhered to both producer and consumer farm products will be financially benefited.

No logical argument may be launched against the present policy of the Farm Bureau. The farmer does not receive a profit for what he produces equivalent to the profits manufacturers and business men consider necessary to maintain a sound business enterprise. The farm should be on a sound business basis, and if the Farm Bureau can stabilize markets and establish definite marketing system which will benefit both producer and consumer, through its plan of business education, it will serve a great purpose and go a long way toward solving the big economic problem now confronting the nation—the high cost of living.

The tendency of organizations of this type is toward radicalism, and radicalism lies the danger. Radical reform to a certain extent is sometimes necessary to bring about needed and necessary changes, and it is the faculty of balancing the radical with conservative thought that brings success to movements for obtaining minor adjustments.

As a rule such movements are launched and nourished by radicals and appeals to radicalism, but it is gratifying to note that the Farm Bureau has adopted a conservative policy in the beginning. It does not propose to suddenly upset the whole means of marketing that has obtained 10 years and bring about chaos but to educate the farmers along marketing lines, so that they will not sit when markets are glutted, or have nothing to sell when markets are gone. In other words the plan is to stabilize the markets the year round so that there will not be feast or famine, oversupply or shortage, at certain periods of the year. What the Farm Bureau proposes to do is place market regulation in the farmers' hands rather than leave it under the control of profiteers. This will be a welcome innovation to the consuming public if it can be accomplished, and it can be accomplished by exercising sound judgment, and the farmer will have a little more to put on the right side of the ledger at the end of the year.

The exceptionally early snow fall, followed by a long, steady winter, has proven its value this spring. The ground was not frozen deep and the frost came out of the ground almost with the passing of the snow. The farmers will have more time to increase their plowed acreage as well as get in their crops early.

Try a few sunflowers this year and put them in your soil. As ensilage they have about passed the experimental stage at the experiment stations, and it is now up to the farmer to try them out.

Sheep blaze the way for the dairy cow, and hogs follow the herd—a stock rotation as important for success as the proper rotation of crops.

The U. S. Department of Agriculture estimates that there are 21,109,000 horses and 4,995,000 mules on farms and ranches of the United States.

FARM ANIMALS

By H. H. BRYANT, D.V.M.

The L. C. V. Treatment

MEDICINAL treatment of live stock, by the stock owner, should be preventive and not as a rule. I knew a veterinarian, with a successful and extensive farm practice, who was being called to a farm owned by Bill Smith to treat all kinds of sickness. Although the doctor was successful in treating similar cases on other farms, Bill's animals never seemed to recover as quickly.

Bill was a firm believer in protecting animals during cold weather. Consequently he used to shut the doors until the stable was very warm—probably too warm even for comfort. The air was foul, and nothing that his veterinarian had said on the subject seemed to do any good.

One bright sunny cold morning, the doctor got a phone call from Bill: "Doc," he said, "come out at once. You know the horse you were treating for lung fever"—well, it's in bad shape again; so come as soon as you can. You know, Doc, that is the best horse in this part of the country, and I sure hate to lose her."

The doctor immediately went out to see the sick animal. Bill met him, very worried, and took him to a box stall in the stable, carefully closing the door before opening the stall. He explained that he was very careful not to allow any cold air to strike the horse. On stepping into the stall the doctor pulled the blanket from the window, so he could examine the horse. He found the animal with a high temperature, rapid pulse, and labored breathing. Turning to Bill he said: "There's just one chance of saving her. We'll try the L.C.V. treatment."

"While I'm putting up some medicine to clean up this stall, put fresh bedding into it, take the blankets off the windows and let the sunlight in; open at one, in the corner, so that there will be plenty of fresh air here, without draft."

The doctor, to impress Bill, and possibly teach him a lesson, mixed a small dose of colored water and gave to the horse. He then issued strict orders to keep the stall clean, provide only of fresh bedding, and allow lots of good air and sunshine to flood the stall.

The next morning Bill called the doctor:

"Say, Doc, that horse is getting better. That must have been some powerful dope you gave her to get such results."

"Yes," answered the doctor, "it was a wonderful medicine—plenty of light, cleanliness, and ventilation is all the medicine she got."

Bill did some hard thinking. Then he went to the phone, called a carpenter and arranged for a ventilating system for the barn.

If light and fresh air were not so plentiful, and were grown, or had to be manufactured, there is probably nothing that would have such a demand or bring such a high price; but because it is on every hand, not much importance is attached to it. But just because it is so plentiful, and can be had for nothing, let's get our share and watch results.

Disease Prevention

NOT specific cause of diseases are living germs, or bacteria, of a vast number of species and varieties, in air, water, food, soil, and practically everywhere. They are so small that they are invisible except under high power microscope, having a length of approximately one-twentieth

thousandth of an inch; or in other words, it would take twenty-five thousand of these germs, placed end to end, to cover a one inch space.

Some of them are motile, and some of them are not. Certain conditions of temperature and moisture are most favorable to their growth. This growth or reproductive power, is wonderful. Some germs increase at the rate of from 1,000,000 to 2,000,000 in 10 or 12 hours under favorable circumstances.

These germs are spread around by many things, such as water, wind, food, sick animals, carcasses of animals that have died of sickness, carried by flies and other insects, or by parasites, or by persons or animals carrying on clothing or body. They may cause an outbreak of disease which, if local, is called enzootic; if wide spread, epizootic.

It is common knowledge that some disease germs are always present with the animal waiting for a chance to start trouble. Some live for long periods of time in stable surroundings. The air is a very frequent cause of disease, and the impurities of air may be organic and inorganic, the organic being chiefly germs. Air is dangerous when the oxygen content is lowered with a consequent rise of carbon dioxide (CO₂). Air containing more than one per cent of CO₂ is rapidly fatal, causing decreased blood pressure, paralysis of the heart, and death. Therefore proper ventilation is most important, chiefly to renew oxygen contents, and remove the CO₂ and other impurities. By proper ventilation is meant an inlet for fresh air situated toward the ceiling of the stable, and an outlet for foul air near the floor. Impure air is heavier than fresh, and settles to the bottom, and if an outlet is provided with a chimney-like waste pipe, which creates draft, the impure air is drawn off and its place is taken by fresh air from the outside, through the fresh air inlet.

So the first disease prevention is providing plenty of pure air in the stable by installing a proper ventilation system.

The next thing of importance to give attention to is water. Too much water lessens the digestibility of food, causes indigestion, and increased waste. Too little water may cause impactions and lessens the elimination of waste matter from the body.

The time of giving water may be wrong. It should not be given in large amounts after a grain ration, and water should not be too cold, as cold water, in excessive amounts, given to a heated or tired horse, for instance, may cause serious sickness. The water should be pure and sweet, and the source of supply should be protected from contamination.

The same thing can be said about food—as relating the proper feeding intervals, balanced ration and good quality.

Finally, let the sunlight and air in, for these are nature's great disinfectants.

The average cow requires approximately double the weight of air that it does of food and water combined. Just because air is plentiful, and can be had for the asking, too little importance has been placed on its value.

So, when you build your new stable, be sure and install a proper ventilating system.

Although the specific cause of disease is germs, improper care, carelessness in food and feeding and impure air are the predisposing causes, and you will find that if proper attention is given these things that you will have a great deal less sickness among your stock.

Lameness in the Horse

SPLINTS, ring-bones, curbs, and spavins are caused by inflammation of the bone covering due to strains or bruises.

Splints appear along the metacarpal bones and vary in shape and size, usually being small but more serious when the enlargement is near the knee. Lameness resulting from splints is easily recognized—first by noticing the swelling and tenderness on pressure. Although the horse may walk soundly, if trotted on hard ground it goes lame. The lameness caused by splints is, as a rule, not serious as a horse tends naturally to recover. Aged horses rarely show lameness from splints.

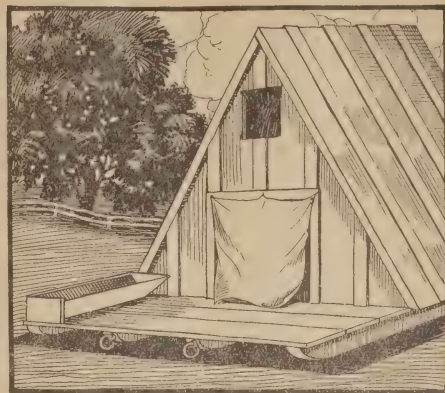
Ring-bones is an enlargement of some portion of the pastern bone, and may be one spot, or extend entirely around this bone. It is of two types commonly called high and low ring-bone. Lameness caused by ring-bones is more serious, generally permanent, and may cause a stiff joint. Navicular disease is an inflammation of the navicular bone which causes an enlargement, followed by severe lameness, and is characterized by tenderness and pain on pressure at a point between the lateral cartilages, and by the tendency of the animal to bear its weight on the toe. High heeled shoes, with no caulk, may help.

Side-bones are a hardening of the lateral cartilages and appear firm on pressure, which, at normal, should be elastic. These appear as hard swellings above the crown of the hoof on both sides just under the skin. The horse may be lame for some time, and then apparently recover, or lameness may be permanent.

Spavin appears at the lower part of the hock on the inner and front side, and vary in size from very small to large. When small they are generally called jacks, and the large ones bone-spavin. There is also a concealed form where disease of the inner surface of the joint bones occurs, generally accompanied by erosions of the articular cartilages. Lameness from spavin may gradually disappear, although the natural recovery may take years. The bone-spavin is one of the most serious forms of lameness. A horse with spavin steps on the toe, the lameness gradually disappearing on exercise. By the spavin, or hock test, is meant the flexing of the leg sharply, holding in this position and then starting the horse quickly. If spavined the lameness is much pronounced with the first few steps. Some old horses without spavins may show lameness following this test, so be careful in forming your opinion.

Wind puffs are enlargements of the synovial sac, soft in nature, and are caused by hard driving, especially on hard roads. They are not serious in themselves.

Bog spavin are enlargements of the synovial sac of the hock joint, soft in nature, appearing at the front and inner part of the hock. Many horses



For Brood Sows

A practical and cheap shelter for the brood sow is a farm necessity. The above picture illustrates such a shelter and its obvious advantages.

The floor should first be built, using two by four sills tapering at one end like sled runners, the inner sills being provided with hooks so that a team may readily be hitched to the floor when the house is to be moved. Such moving insures clean quarters and changes of pasture.

The top is simply set upon this platform—not fastened thereto. It may, therefore, be tipped back on sunny days allowing the light and air to get into it, dry it out and otherwise disinfest it.

The base should be about three feet longer than the house proper. A small window near the top allows for ventilation, but a shutter should be provided for cold weather. The lower opening may be covered with gunny sack or a piece of old carpet to keep out the drafts. During cold snaps a lantern may be hung in the peak. It is wise to build a strong railing about eight or ten inches from the floor and about six or eight inches from the wall all around the inside of this building. By design.

The building may be weather stripped or covered with tar paper. Plans and specifications will be sent on application.

seem predisposed to them.

Thorough-pins are similar in nature to bog-spavin, are located at the back and upper part of the hock, are soft on pressure and may cause serious lameness.

Curb appear at the back and lower part of the hock, and first appear as hot tender swellings, quite painful. As inflammation subsides, there is left a hard enlargement. Young horses with curb, given proper treatment, may practically recover, showing only slight enlargements.

Capped hock is not a serious disturbance. It does not cause lameness or interfere with usefulness, but they are very unsightly. These respond to proper treatment.

Sheep Scab

SHEEP SCAB, or rables, is one of the oldest and most injurious of sheep diseases, causing marked decrease in wool yield, loss of weight of animals, and death, if not properly treated.

Although the disease is highly contagious, and spreads with alarming rapidity, it yields readily to proper treatment.

It is caused by a mite or parasite, called, technically, the *Psoroptes ovis*, measuring when full grown from one-fourth to one-fifth of an inch in length. They occur on any portion of the body covered by wool, but more often where the pelt is the thickest. These mites may readily be seen, with the aid of a low power hand lens, if placed on a dark background.

The life cycle of a mite is from twelve to fifteen days; that is from the time the female lays the eggs, until these eggs hatch, and the young reach maturity and are themselves laying eggs. It has been estimated by authorities that the sixth generation—which generally takes ninety days to develop—may number anywhere from 1,000,000 to 1,500,000, so one can see that, combined with its highly contagious nature, its wonderful breeding powers, and the destruction it causes, what a slight infection may develop into, and of what importance

(Continued on page 24)

CLOVERLAND MAGAZINE

Cities of The North DULUTH

By F. W. LUENING

ONCE upon a time—as all good stories begin—a bill came before the United States Congress, proposing the construction of a railroad into a little wilderness city called Duluth.

There arose in the Senate, the Honorable J. Proctor Knott, brilliant Kentuckian:

"I was utterly at a loss to determine," he said, "where the terminus of this great and indispensable road should be until I accidentally overheard some gentlemen mention the name 'Duluth.'"

"Duluth! The word fell upon my ear with peculiar and indescribable charm.

"Duluth! 'Twas the name for which my soul had panted for years.

"But where was Duluth? Never, in my limited reading, had my vision been gladdened by seeing the celestial word in print. I asked my friends about it, but they knew nothing of it. I rushed to my library, but I could nowhere find Duluth. Nevertheless, I was confident that it existed somewhere, and that its discovery would constitute the crowning glory of the present century, if not of all modern times.

"Then, thanks to the beneficence of that band of ministering angels who have their bright abode in the far-off capitol of Minnesota, just as the agony of my anxiety was about to culminate in the frenzy of despair, this blessed map was placed in my hands; and as I unfolded it, a resplendent scene of ineffable glory opened before me. There, for the first time, my enchanted eyes rested upon the word 'Duluth.'"

"This map, sir, is intended to illustrate the position of Duluth in the United States; but if the gentlemen will examine it I think they will concur with me in the opinion that it is far too modest in its pretensions. It not only illustrates the position of Duluth in the United States, but exhibits its relations with all created things. The fact is, sir, Duluth is pre-eminently a central place. For I have been

told by gentlemen who have been so reckless of their personal safety as to venture away in those awful regions where Duluth is supposed to be, that it is so exactly in the center of the visible universe that the sky comes down at precisely the same distance all around it.

"I find, by reference to this map, that Duluth is situated somewhere near the western end of Lake Superior, but as there is no dot or other mark indicating its exact location, I am unable to say whether it is actually confined to any particular spot or whether it is just lying around there loose.

"But, however that may be, I am satisfied Duluth is there, or thereabouts, for I see it stated here on this map that it is exactly 3,990 miles from Liverpool; though I have no doubt, for the sake of convenience, it may be moved back ten miles so as to make the distance an even 4,000.

"Then, sir, there is the climate of Duluth—unquestionably the most salubrious and delightful to be found anywhere on the Lord's earth. Now I have always been under the impression that in the region around Lake Superior it was cold enough for at least nine months in the year to freeze the smoke stack off a locomotive. But I see it represented here on this map that Duluth is situated just exactly half way between the latitudes of Paris and Venice, so that gentlemen who have inhaled the exhilarating air of the one or basked in the golden sunshine of the other, must see at a glance that Duluth must be a place of untold delights.

"As to the commercial resources of Duluth, sir, they are simply illimitable, and inexhaustible. I find within a convenient distance, the Piegian Indians, which, of all the many accessories to the glory of Duluth, I consider, by far the most inestimable. I remark, sir, upon these vast 'wheat fields,' represented on this map in the immediate neighborhood of the buffaloes and the Piegians. The idea of



And There She Hung, Tight and Secure Between the Walls, While the Waters Raged Behind Her

there being these immense wheat fields in the very heart of a wilderness, hundreds and hundreds of miles beyond the utmost verge of civilization, may appear to some gentlemen rather incongruous. But to my mind there is no difficulty in the matter whatever. It is evident, sir, that the Piegians sowed that wheat there and plowed it with buffalo bulls. Now, sir, this fortunate combination of buffaloes and Piegians, considering their relative positions to each other and to Duluth, as they are arranged on this map, satisfied me that Duluth is destined to be the beef market of the world. Here, you will observe, are the buffaloes, directly between the Piegians and Duluth; and here, right on the road to Duluth, are the Creeks. Now, sir, when the buffaloes are sufficiently fat from grazing on these immense wheat fields, it will be the easiest thing in the world for the Piegians to drive them on down, stay

all night with their friends the Creeks and go into Duluth in the morning. I think I see them now, sir, a vast host of buffaloes, with their heads down their eyes glaring, their nostrils dilated, their tongues out and their tails curled over their backs, tearing along toward Duluth, with about a thousand Piegians on their grass-bellied ponies yelling at their heels. As they sweep past the Creeks, they join in the chase and away they all go, yelling, bellowing, ripping along amid clouds of dust until the last buffalo is safely penned in the stockyards of Duluth.

"Sir, I might stand here for hours and expatiate upon the gorgeous prospects of Duluth, as depicted upon this map. But human life is too short at the time of this house too valuable to allow me to linger longer upon the delightful theme. I think every gentleman on this floor is as well satisfied as I am that Duluth is destined to become the commercial metropolis of the universe and that this road should be built at once. Nevertheless, sir, grieves my very soul to be compelled to say that I cannot vote for the grant of lands provided for in this bill. In the first place, my constituents have no interest in the road; in the second these lands, which I am asked to give away, are not mine to bestow. My relation to them is simply that of a trustee. Shall I betray that trust? Never! Rather perish Duluth! Rather let the freezing cyclones of the blizzard Northwest bury it forever beneath the eddying sands of the St. Croix!"

Thus was Duluth introduced to the Congress of these United States. Unfortunately for the Kentucky senator his speech so amused the Senate that his time limit was extended—and said a lot more about Duluth. Later he found that in the interval one of his own pet bills was killed, while the Duluth railway measure was approved by Congress.

Proctor Knott's classic humor sends gentle echos into Duluth, even today. And Duluth is big enough to enjoy them. Her Commercial Club has actually perpetuated the Knott speech in handsome printed form, for all the world to read. That is the spirit of Duluth!

Duluth has faced other quaint vicissitudes. Not so many years ago the headlight of a Superior street car struck full upon two fuzzy moving objects. The brakes screamed, the car stopped, and motorman and passengers piled out upon the metropolis.



There, Dazzled by the Electric Glare from the Headlight of a Superior Street Car Were Two Bear Cubs Pawing Vaguely to Clear Their Blurred Vision.

vement. There, dazzled by the electric glare, were two bear cubs. The wilderness children sat up in the track and pawed vaguely to clear their hurried vision.

A young man yelled:

"Let's go get 'em!" and started forward.

Then came, from the shadows, a deep-throated growl. With one warning "woof!" a long-tailed she-bear dashed to the protection of her offspring. With many woofs—not to mention feminine shrieks—the passengers rushed back to the protection of their car. The doors were slammed shut and the headlights snapped out. The mother bear, after soundly cuffing her family, guided them into the adows, somewhere just off Superior street.

And yet, Superior street isn't so very different from State street, Chicago, or, for that matter, Broadway, New York. It's a metropolitan highway, where vehicles clang, sirens shriek, and pedestrians dodge for the safety zones. However, Nature has trimmed the upper end of Lake Superior with a huge mass of granite. Over this granite she has caused a path of forest and underbrush that harbors the creatures of the wild. And, coming at the base of this granite lies Duluth. Behind her rises a wall of rock. She has climbed well up the slope, and Superior street is moved midway between the crest and the sands of the inland sea. In the rockwall is a cleft, where a deep ravine comes down—a natural gateway from Metropolis to Hinterland. Through the cleft had come the shelter and her family.

During the same year it is said that deer forest creatures wandered through the cleft. Deer found themselves in the back yards of Duluth houses. A wolf met death in an alleyway. So what of Proctor Knott's story: "I have been told by gentlemen as reckless of their personal safety as adventure away in those awful regions. Naturalists, however, explain that same phenomenon of animal movement caused this descent upon Duluth; and Duluth's own people were quite amused and astounded than the rest of the world by the unusual visitations during that winter, several years ago.

For winters, by the way, are another source of ribald humor ancient Duluth. For instance, a traveling man out of Duluth called on a New York friend.

"And how do you find the summers there in Duluth," asked the New Yorker.

"Well, I really don't know yet; I've never lived there for eleven months."

His, and a hundred other such stories, finally got under the skin of Duluthians. Wherefore they prevailed upon the United States weather bureau to issue a statement on climatic conditions. The report, compiled by H.W. Richardson, meteorologist, and approved by Charles F. Marvin, chief of the bureau, says that on one historic occasion, in a period of forty-seven years, the thermometer sank to 44 degrees below zero—that was on October 3 occasion, mind you, in the whole forty-seven years! The report also says: that in these forty-seven years the temperature fell to 30 degrees or more below, only six times in forty-seven Decembers; twenty-seven times in forty-seven Januaries, and six times in forty-seven Februaries. This is an average of not quite once each winter! As an honest Chicagoan, if you can find one, how often temperatures in this city reach similar low levels; or consult the oracles of New England and learn from them what really cold winter means.

Low temperatures are a liability in winter, they become an asset in spring. Duluth capitalizes the metamorphosis. Her report says:

"Oh, for a place where I could cool off."

Well, there is just such a place, and that place is Duluth, Minn., where the summer temperature averages in the seventies—where the atmosphere is breezy, invigorating, restful; and hot, sultry nights are practically unknown.

Duluth, fanned by the cooling

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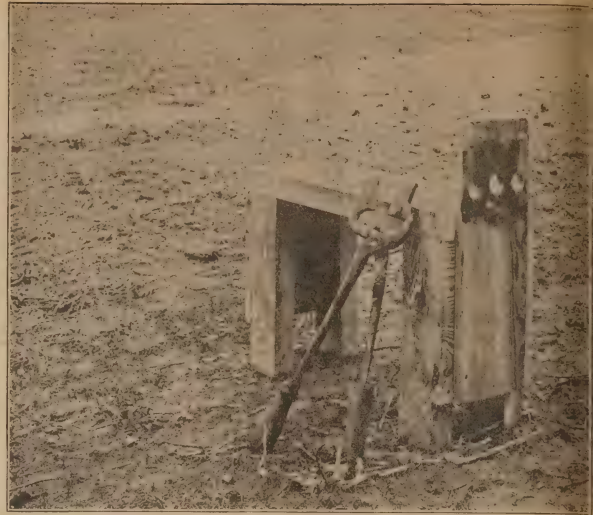
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LAMBS—Profit or Loss?

By D. L. McMILLAN
Superintendent U. P. Experiment Station

THE critical time in determining profit and loss from the farm flock is at hand.

Are you planning to make the best of it?

The next sixty days will determine very largely whether the farm flocks are going to yield big profits to their owner, or a decided loss. This depends entirely upon the care given the ewes and lambs at this time. The care of the lambs for the first two weeks, determines quite largely your profit. It is a pleasure to note that a large percent of farmers have used pure bred rams this last year.

Ewes should be given plenty of exercise a considerable time before lambing, and a little grain, possibly one-half to three-fourths pounds to each, of oats and bran, barley and bran, or even clear oats should be given for from two to four weeks before lambing, as the lamb at that time is drawing heavily on the vitality of the ewe. It is the writer's judgment that a little grain fed before lambing is worth more than grain fed after, as it insures a well developed

lamb, and the ewe's strength to deliver it successfully; also that she will have milk to give it a start.

If the lamb comes before green grass starts, a laxative feed of some kind is very beneficial, either senna, roots, or bran, with a little oil meal.

Lambs are very high priced at this year, consequently every additional lamb that is saved this spring, means considerable extra profit, to the owner.

Now is the time to get chummy with the ewes, so that they will not be all frightened when you are handling them. The closest attention should be given the flock each day, so that the ewes that are about to lamb can be removed to a separate pen, so that there is no danger of the lambs losing their mothers or the ewes disowning them. Care should be taken to ensure that the pens are built close enough so that the little lambs can not be crowded out.

It will pay any farmer with a small flock to use an alarm clock frequently if he is expecting lambs at night. Many times the ewe will need assistance in delivering her lamb, and



The Lamb Is Now in Position for Docking.



The Heated Iron Answers a Quick and Humane Operation.

If the weather is cold, there is danger of the lamb chilling before it dries off.

If a lamb is found chilled, even though its muscles are stiff, if there is any heart action at all, it can be brought back to normal condition by dipping it into water at a blood temperature, and holding there for some time, then removing and massaging gently with warm cloths, and keeping wrapped until it is dry. A few drops of Jamaica ginger in warm water will assist in reviving it, or whiskey is better if you happen to have it.

As soon as it is dry, take it to its mother and assist it to getting a good feed. If the mother owns it, then your troubles are largely over with that particular lamb.

If a lamb is dead upon arrival, and you have any twin lambs, the skin can be removed from the dead one and sewed on one of the twins and that lamb given to its foster mother. Often it is necessary to hold the ewe if she does not own it at once, while the lamb sucks for the first few times. Then the ewe is almost sure to own the lamb, providing, of course, the ewe and lamb are kept by themselves.

It is well to keep the ewes with twins in a separate pen from the rest that have not lambed, as they will need additional care.

If the ewes have been properly wintered and care taken at breeding time, the farmer should not be satisfied

with less than a 100 percent lamb crop.

Where the ewes do not give sufficient milk for the lambs, cows milk can be given in a nursing bottle to very good advantage, as it is very necessary for the lamb to get a good start early in life.

The work that is most often neglected, and in the writer's judgment, the most important for the farmer that wants to realize the greatest profit from his lamb crop, is docking and castrating.

This should be done when the lambs are from one to two weeks old. At that age it is perfectly safe to dock and castrate at the same time.

There are two systems of docking, one with a hot pincher, heating it to a cherry red, and removing the tails, after drawing them through a hole in a board, similar to cut shown.

If the lambs are left until the tails become large and fleshy, it is quite necessary to use the hot iron, but when the tails are docked at the proper time a sharp knife is just as successful, as a young lamb from one to two weeks will not bleed much.

When docking and castrating, it is well to have a bench or table to work on, with at least two sharp knives, a can of disinfectant, some pine tar, and a few strings six or eight inches long.

The work should be done when the lambs are quiet, preferably in the



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*Cutting Off the End of the Scrotum—in Young
Lambs, a Very Simple and Nearly Painless Operation*

morning, as they will not bleed as much.

One man can hold the lamb while the operator presses back the skin a little in severing the tail, about one and a half inches from the body.

In castrating, the lower third of the scrotum is removed, as shown in the picture, using the same knife that was used on the tail, thus reserving the keenest edged knife for cutting the lining of the testicles, then removing them with the thumb and finger, or with the teeth, as desired. Many operators, when doing much of this work, prefer to use their teeth, as it is much more rapid, and there is no danger of slipping occasionally, as there is in using the thumb and finger.

If the lambs are pretty well developed, the cord should be scraped off, rather than cutting it, or drawing it out, in order to prevent excessive bleeding. Then the disinfectant should be applied to both incisions, and if there is any danger of flies, tar should be smeared to the wool around the cuts. If the tar is not used, there is danger of maggots developing from fly-blows.

If after a reasonable length of time the tail continues to bleed, a string can be tied tightly around the stub and left there for an hour or two. Extreme care should be taken, however, in counting the number of strings used, and when removing them see that none are left on, as the stub of the tail swells severely and in time it will die and stuff off, up to the point the string is attached.

If the ewes are lambing after the flies begin coming, great care should be used in disinfecting the ewe to prevent the fly-blows, as maggots are liable to develop and do great damage, during hot moist weather, to lambing ewes.

If the ewes lamb after they have been on grass some little time, there is usually very little difficulty experienced, as the ewes single out during lambing, and, having plenty of milk, seldom disown their lambs.

The work of docking and castrating is so simple and inexpensive, and the returns from the work so great that no farmer should overlook this operation.

On the big markets, the docked and trimmed lambs usually sell for from 2 to 5 cents a pound above the untrimmed lambs, and the castrated lamb, at six months, usually weighs the uncastrated lamb several pounds.

There is a good reason for this extra weight. The ram lamb at the age begins to grow staggy, develops a heavier neck and shoulder, at the expense of the loin and leg. They are also more nervous, which retards growth, while castrated lambs feed quietly, putting on flesh more uniformly all over the body, developing the hind quarter and loin, which are the high priced cuts.

It will be to the great advantage every flock owner to see that his ewes and lambs have the best of care during lambing time, and that his lambs



The Testicles Are Exposed, and Severed With a Sharp Knife



The Testicles and Adhering Cords Are Pulled Forward.

can figure on a well-developed flock. There is no danger of getting them too fat, either for breeding purposes or for the butcher, if an excessive use of fattening grains is avoided. When well fed they grow so much that they do not lay on any surplus fat.

"Many people have made a failure of trying to raise lambs on cow's milk. Lambs may be successfully reared on such milk, however, if the proper precautions are taken in feeding. Young lambs are easily taught to drink cow's milk from a bottle with a rubber nipple attached to it, and after they have once tasted the milk they will quickly and freely run to the person carrying the bottle. They may also be taught to drink out of a dipper. The reason why so many people have been unsuccessful in raising lambs by hand is in most cases that they did not understand the difference between cow's milk and sheep's milk as regards richness and fat percentage. People have a general idea that pure cow's milk is too rich for lambs, but the writer is of a contrary opinion. He knows from analyses of sheep's milk that cow's milk is much lower in fat percentage than sheep's milk. Some years ago a grade Dorset ewe showed in a week's test 14.4 per cent of fat. Of course, her milk was richer than the average. It is astonishing to hear fairly well educated men say that one cannot feed cow's whole milk to lambs because it is too rich and will kill them. Such expressions of opinion seem laughable to the writer.

When the sheep and lambs go out to pasture the lamb creep can be moved out with them and set up in a corner where the lambs will soon detect it again. Some sheep breeders may say that lambs do not need any extra grain when they are out on good pasture and are suckling their mothers. Experiments conducted along this line, have shown, however, that lambs do not do well on pasture alone. It is better to feed a little grain to lambs all summer long. Even if such lambs are held over for fattening in the winter it has been learned that lambs fed grain during the summer make more and cheaper gains than lambs of the same breeding and age that do not receive any grain while on pasture. If the lambs are well during their first year one



An Antiseptic Is Then Applied and the Operation Is Completed

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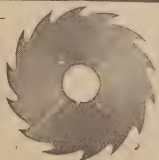
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CITIES OF THE NORTH—Duluth

(Continued from page 15)

breezes of old Lake Superior, has the most wonderful summer climate in the world. It is, in fact, the "Summer City" of the continent, where the days fill one with the joy of living and the nights refresh and restore."

There's a lot of truth in the claims. While other cities swelter, Duluth doesn't even mop a brow. But, when he lingers lovingly over his balmy summertime, the Duluthian makes a tactical error. Nobody doubts Duluth's cool summers. Even Proctor Knott agrees that it's cool enough during at least nine months of the year to freeze the smokestack off a locomotive. So Duluth needs no array of figures to prove her freedom from heat prostrations. She ought, more robustly, to defend her winter climate. She's fully justified in doing it, too. There is nothing in her weather report a favorable comparison with the rest of the North Temperate zone.

It was weather that brought Duluth her most recent romance and one of her greatest tragedies. On November 28, 1905, a superintendent struck a match against the INSIDE surface of a two-foot brick wall of a Patrick-Duluth warehouse. The match was blown out. The draft that did it came THROUGH THE WALL! Something was going on outside—something terrific and ominous. The superintendent, clinging to a sheltered window, found that a sixty-eight mile gale was pouring into Duluth, out of Lake Superior. He saw, in the leaping spray, a ship flying before the wind. She was making for the harbor mouth. She bore straight for the Duluth Canal and was lifted, with a rush of waters, into it. Then the waters rolled on; a great wave curled away from under her bows. She dropped deep into the trough. There followed a sharp check in the headlong rush. The vessel quivered, lay still, and then swung to the north. In a moment new breakers caught her. They jammed her hard against the North Pier, beat her mercilessly amidships, and broke her in two.

From his windows the superintendent saw men hang to the rigging. He saw them struggle toward shore, in the icy water, then sink, one by one, in the turbulent seas.

Thus was the Mataafa wrecked in the harbor mouth at Duluth. Nine of her crew died while much of Duluth watched from the shores, helpless. The ship's master later reported that he ran aground. The water's depth, where he struck was twenty-six feet; the Mataafa drew eighteen feet; so the winds had lifted eight feet of water out of the canal mouth at the moment that the Mataafa went through.

That was one of Duluth's tragedies. The same storm brought a romance.

Among the fourteen vessels wrecked west of Keweenaw Point was an ore carrier that beat her way out, toward open water, to find safety. Gradually the waves beat her shoreward. At last, upon a coast of towering granite, she drove toward certain destruction. There was no haven; there wasn't a foot of sand, even, upon which to beach her. The crew fought to the last. Then a huge slather of water poured down upon them. The vessel was caught on its crest and carried, helpless, straight against the granite wall. She went into it, head on, and the crew waited the splintering crash and sickening shock that would mark the end.

But the waves washed back; the crash didn't come; the ship lay still.

Through the night shadows the crew saw rocks towering to right and left of them; behind was the foaming sea; and ahead there seemed to be greenery—land.

It was morning before they believed the miracle. The ship had been thrown straight into a cleft—a tiny ravine, cut into the rock by a stream, making its way toward the lake. And there she hung, tight and secure between the walls, while the waters raged behind her. She withstood the storm in this protection and was later floated, comparatively without damage. It is said that the rift that cradled

her was the only break in miles of solid granite wall.

Duluth today has a population something more than 100,000. Ten years ago it was little more than that. But this growth doesn't tell the story. Ships that make her harbor feel the swirl of industrial strength across their prows. They pass under an aerial bridge, jutting black against the skyline, and huge as the structure of any world port. Out of the clust of mass on the shores great arms stretch into the waters—massive giants of industrial strength—the ore docks. Upon them, dwarfed to crawling threads, toy trains feed puny cargoes into the gigantic maws. They bring away; give place one to another, full pour the riches of the mines into caverns that are never full? Ships come, are laden and move away—the great docks, oblivious to the play of life about them, stand immutable as the pyramids. Behind them, around them, and hemming them are nets of steel—railways that carry the head of the lakes, to look at the wealth of the Iron Range. In winter when snow muffles her in; or in summer, when a mantle of green creeps down upon Duluth from her surrounding hill, Duluth seethes with industrial life.

Little did Proctor Knott dream that his sarcasm on Duluth's Liverpool relationship would near reality in the year of our Lord, 1920. To the engineers are probing the depths of the St. Lawrence River—ready to dredge a waterway, with Liverpool one terminal port and Duluth, Minnesota the other. The head of the Great Lakes, and the ports of the world are about to be united. Vessels will come from foreign coasts, their destinations Duluth.

And who shall say how the movements of these vessels will change

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commerce of the world. Who shall say that the port of New York is pre-eminently and for all time THE PORT of the United States?

Back in 1861 Thaddeus Stevens proposed: "At the head of Lake Superior will grow one of the largest cities; perhaps the largest on the continent."

In 1865 Horace Greeley followed him in the: "At the head of Lake Superior will be seen a city rivaling any other, in ages gone by, has enjoyed the commerce of the East."

And in 1892 Stephen A. Douglas said of a city at the head of Lake Superior: "The more possibilities for the future in any city on Lake Michigan."

Finally, a confidential report, addressed to Lord Salisbury, Premier of Great Britain, by the House of Rothschilds, said: "The next great region lying both in the United States and in the British Dominion of Canada surrounds the upper great lakes. The possibilities of the development of this region are beyond calculation."

Today we have Duluth; her ore docks send 20,000,000 tons of iron into the markets; her harbor ships 1,000,000 bushels of grain to the nation's mills. Her industries include \$25,000,000 steel plant and a long list of production of which she is justly proud. But to really gauge her prospects one must see her surroundings; Proctor, for instance, where a thousand ore cars stretch away against the hills, on mile after mile of ballasted track; or Marquette, where monumental posts light the streets, and schoolhouses rival the educational perfection of the greatest cities; or Two Harbors, with its broad streets and modern stores; or a host of other places, all in the path of a growing progress.

The barriers to the world's markets are breaking. The wealth of the Great Lakes basin gleams before men. Will Duluth remain the wilderness stronghold of Proctor Knott; or will the world some day acclaim her, as did the vivid Dr. Thomas Foster — "The Ninth City of the Unsalted Seas."

BROODING

By ANNABEL CAMPBELL
Extension Specialist, Michigan Agricultural College

WE HAVE been waiting expectantly for just this time, hatching time, and with it has come the care and responsibility of many little lives.

The fire in the brooder should have been started at least forty-eight hours before the hatch was ready to be placed in new quarters and the heat regulated to a temperature of about 95 degrees at a height of two or three inches above the brooder floor. This temperature should be maintained for the first week and at the beginning of the second week it should be gradually lowered so that at the end of the second week it stands at about 80 degrees, and at the end of the third week, 70 degrees should be sufficiently high. Watch the chicks and see if they are comfortable and govern the regulator of the brooder by your observations.

The floor of the hover should be covered with clean, sharp sand to a depth of two or three inches. Any dead chicks should be removed at once and clean, dry sand scattered on the floor daily and once a week a thorough cleaning should take place. At the end of the first week cover the floor with clean straw.

A low fence of close woven wire eight or nine inches high, placed around the outside of the hover about fifteen inches from the outer edge, if kept in place for the first three days, will prevent chicks from wandering away from the source of heat, thus eliminating the extra trouble of closely watching the birds to keep them within the warm zone. At the end of this time they need a greater range of temperature and they will have become educated as to the source of heat and the fence should be removed. Just as soon as possible the chicks should be encouraged to get out on the ground by placing the noon feeding just outside the door. Roosts should be placed in the brooder house preferably

in ladder formation with the lowest roost about a foot from the ground and the young chicks will train themselves to roost and thus avoid crowding.

If the hen is given the care of the chicks, she may be left to decide for herself when to come off with her flock. However, from the time she leaves her nest her movements should be governed. The happiest condition under which a hen can be allowed to rear her young is in an inclosed yard with shelter provided for them all. There should be shade available and the place should be without high weeds or tangled grass. However, if this is not practical a coop should be provided. An A-shaped house makes a very good shelter, with a hen confined while the chicks are allowed to run out. One hen thus protected can easily take care of twenty chicks.

The chicks are on their feet dry and fluffy and seemingly hunting for food in a surprisingly short time, and we often forget that Mother Nature is the most thoughtful and wisest of mothers, and that just before the tiny bird breaks the shell the yolk of the egg, a rich morsel of food commences to fill the body cavity. It is connected by a tiny tube with the intestine and the yellow fluid passes from the egg sack through this connecting tube and finally reaches the gizzard. If we feed our chicks at this time we are doing that which often proves fatal to the tiny new life, thrusting upon it too big meals just at the time the digestive organs are most delicate. A chick comes into the world with nourishment sufficient to suffice from forty-eight to seventy-two hours if need be, although we do not allow seventy-two hours to elapse before food is provided but rather forty-eight hours. The bird if vitally strong could subsist without food for the full seventy-two hours.

The following outline is the plan used at the Michigan Agricultural College with very splendid results and it

has the advantage of being so simple that it can be followed very easily.

Feeding Ration

First day:

After hatch is completed leave the chicks in nursery of incubator for twenty-four hours.

Second day:

On the second day place chicks in brooder, giving sour skim milk to drink and coarse sand or chick grit.

Third day:

Give five feeds of oatmeal-feed every two and one-half hours at the rate of one ounce to fifty chicks.

Fourth to Fourteenth day:

Two feeds of commercial feed (fine cracked grains).

Three feeds of the following mash (per 100 chicks): 1 raw egg—infertile or fresh; one-eighth pound of bran; one-eighth pound of oatmeal.

Feed one feed of sprouted oats, lettuce or lawn clippings after the fourteenth day feed.

Continue feeds of commercial chick feed and give also the following mash moistened with milk:

Bran, 30 per cent; middlings, 20 per cent; cornmeal, 20 per cent; meat scrap, 20 per cent; ground oats, 10 per cent.

Give coarser grains as chicks grow older.

Give plenty of sour milk to drink for rapid growth.

Avoid sloppy wet feeds.

Feed little and often when the chicks are small.

Supply plenty of shade and fresh water in summer.

Avoid always any feed that shows signs of mould.

Keep sour milk before the chicks all of the time for the first at least.

See that the birds exercise and get plenty of fresh air.

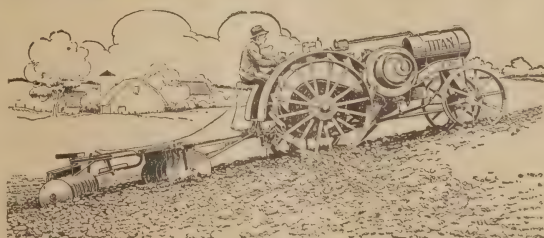
(Continued on page 22)

Make the Lumps Work for YOU

Brush, stumps and rocks are not the only unprofitable tenants that you will find occupying your good land. After you have cleaned out these undesirables and have your land under cultivation, there will be, in their place, hard lumps of earth to contend with.

A lump of earth in a plowed field is no good as a lump—it retards the growth of young plants, absorbs moisture and withholds from your crops the valuable plant food that it contains. But crush and pulverize the lumps and you convert them into good-crop assets.

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Troublesome Habits and Diseases

If chicks are not kept in a sufficiently warm temperature and if they are not trained as to the source of heat during the first few days, they are apt to form the habit of crowding or piling up. The chick finds that by crowding it is kept warm and so the habit is formed. Care should be taken to train these young birds in the beginning and in this way the trouble is warded off.

The habit of toe-picking is often developed because the birds have nothing to do and being provided with the instinct to scratch for food form the habit of picking at one another's toes, and in so doing secure a taste of blood and develop in that way an appetite for it. This can be avoided by covering the floor of the brooder with fine cut straw after the first week.

Leg-weakness is brought about most often by over-feeding and lack of exercise of the growing chick. Limited and retarded feeding should be practiced and the remains of the meal removed after a period of fifteen minutes. Plenty of sour milk, bran as a part of the ration, green food and an opportunity to get onto the ground are the best preventatives.

The breast bone of the normal bird is straight and even, but upon examining a fowl the bone is often found to be bent or twisted. This is sometimes brought about by over large roosts and for this reason chicks should be provided with small roosts. This condition, however, is more often brought about by over-crowding when the chicks are very young and the bone is still cartilage, or it may be developed because of the lack of mineral matter in the diet.

A small amount of granulated bone provided after the chicks are two weeks old is beneficial.

Gapes is caused by the presence of tiny worms in the air passage of the bird and is made evident by the sneezing, gasping and coughing of the victim caused by the irritation. This trouble occurs with young birds rather than fowls but it is sometimes evident in the adult. The parasite in an affected bird is found in the windpipe

Chickens Require Fresh Garbage

FRESH garbage, fed as soon as possible after it is discarded from the tables of consumers, provides an efficient feed for poultry. Used judiciously, it will reduce the cost of egg and meat production from 25 to 30 per cent.

Cleanliness and sanitation in the preparation, handling and feeding of garbage are essential, as sour or tainted garbage is particularly obnoxious to chickens, because any fermentation produces digestive disorders and profuse diarrhea. Apparently the intrinsic value of garbage as a poultry feed comes from the fact that it provides a diversified ration which satisfies all the needs and requirements of the flock. The refuse is always a valuable substitute for costly grains and concentrates in the hen dietary.

It is only the owner who will pick over the garbage and eliminate the objectionable foreign matter that will realize profitable and dependable results from its use. Specialists of the Department of Agriculture recommend running the garbage through a meat or vegetable chopper and mixing it with a little moist mash before it is placed before the fowls. It is usually advisable to provide as much refuse as the birds will clean up with a relish in the course of an hour. Any feed which the fowls reject should be removed from the troughs, feeding pens or yards as soon as possible thereafter. Otherwise it sours and contaminates the premises and, subsequently, if the fowls peck at it during a period when they are hungry, it invariably causes digestive trouble.

Where garbage is fed it is always essential to supply a light ration of grain twice daily as well as to have a dry mash available in hoppers before the flock all the time. Generally, table scraps are rich in protein, al-

attached to the lining by succor in mouth, feeding upon the blood of the young chick and causing great irritation. The body of the worm is filled with eggs, which are expelled by the coughing and sneezing of the bird and may be picked up by other birds that in turn become affected. The known treatment is the removal of the worm from the tract. This may be accomplished by the use of a loop, horseshair or by inserting a loop of feather stripped with the exception the tip, and in this way drawing out the worms which should be carefully burned. Fresh runs for the bird should be provided the following way if the trouble is prevalent, but if it is not possible the ground should be generously sprinkled with lime, plowed and cropped.

White diarrhea is fatal only during the first four days of a chick's life. The chick, however, that recovers from the disease becomes a carrier and in turn may transmit this trouble to the offspring and in this way a disease may be carried down through a flock, taking its toll only from the young chick and being recognized in the adult bird only because of the generated and discolored condition of the ovary. There is no cure, but measures of prevention may be used. When the presence of the disease assured the flock should be disposed of and be replaced with vitally strong material. Incubators and brooders should be thoroughly disinfected before using and after each hatch, when the season of use is over should be exposed to the sunlight and fresh air before they are put away.

On the eighteenth day of the hatch the interior of the incubator should be darkened by the placing of a red curtain over the glass so that the chicks after hatching will not pick one another's droppings, thus passing the disease through the whole flock. Sour milk is a preventive and should be given to the birds as the only feed during the second twenty-four hours. Do not make the mistake of confusing simple diarrhea with White Diarrhea. The first is brought about by conditions that may be governed, such as mouldy or sour food, chilling or over-crowding.

though where the garbage is deficient in this ingredient it is practical to supplement the mash with about 10 per cent of meat meal.

Generally speaking, there is less danger from feeding garbage in the winter than during the summer, as the cold weather prevents rapid decomposition and fermentation of the refuse. Where many uncooked potatoes are present in the garbage, it is usual to have a good plan to separate them and cook them before feeding to the fowls. Otherwise they are not well utilized and often induce digestive troubles.

Experiments in feeding garbage by the government experimental farm, Beltsville, Md., indicate that the hens will use about three quarts of garbage daily to advantage.

Baby Chicks from Cloverland

S. C. W. Leghorn Chicks
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Range Raised Fowls, six-
teen cents each, prepaid
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Are Patent Egg Producers Fakes?

SERIOUS question as to the value of various so-called egg producing tablets which are finding large sale to poultry interests throughout Michigan is raised by Prof. A. J. Patten, Experiment Station chemist at the Michigan Agricultural College. Analysis of the contents of several of these products has failed so far to reveal elements which can be expected to stimulate egg production in any way.

"Our feed inspectors are finding these egg production tablets all over the state," says Professor Patten, "and indications are that at least three or four brands are being sold on a large scale. Those which we have examined so far contain only common elements, such as salt, iron oxide, calcium carbonate, magnesium sulphate, etc., to which are usually added fenugreek or anise. There is nothing in the tablets which could seem to stimulate egg production in any way."

The high price of eggs at the present time is said to be creating a good field for the sale of the compounds, as poultry raisers are ready to try anything in an effort to increase production.

The tests made by Professor Patten, indicate, however, that money spent for fancy products which are advertised as sure egg production stimulants, is very likely money wasted.

MITES

Poultry men and farmers sometimes overlook a very important fact. It is that the best of feed, plenty of it, well balanced ration, etc., will not induce hens to lay eggs if they are compelled to roost in houses infested with mites.

The little red insect saps the vitality of the hen by sucking her blood. Hens have actually been killed, virtually eaten alive, by mites. Chickens cannot lay except when their vitality is maintained. Vitality and mites cannot exist in the same hen roost.

At the first sign of warm weather guard against mites by giving all wood work inside the poultry house a coat of hot whitewash well carbolized.

The roosts and their supports should be painted all over with carbolineum, zenoleum, carpoline, or kresol. These are all similar products, called by different names by different manufacturers. They are cresol or tar oil disinfectants, and are death to mites, while in no way injurious to the chickens.

The time and cost of carrying out these suggestions will be amply repaid by the hens who will show their appreciation by an increased yield of eggs.



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Notable among recent Oneida achievements is the record-breaking cross-country run of "Hi" Johnston and "Lightning Jack" Welch in a 1914-ton Oneida truck under capacity load. Alternating at the wheel, they drove against dense fog and terrific rains and reached New York 62 road hours after they left Green Bay, in Cloverland.

Write for the booklet: "Lightning Jack" Welch Tells His Own Story of Putting An Oneida Truck Into New York Two Days Ahead of the Best Cross-country Record Known."

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 Stevens Point, Wis.



Overland 4-Door Sedan

OVERLAND-GREEN BAY COMPANY
 Green Bay, Wisconsin

FARM ANIMALS

(Continued from page 13)

the prompt treatment of an effective dip is.

In order to rid a flock of sheep of the disease, prompt and thorough dipping must be done; the first dipping to be followed not earlier than ten days, and not later than 14, the shorter time being preferable. Move the dipped sheep to new quarters and new pastures, as the parasite lives a good while off the sheep's body in stables, lots and pastures, and especially in moist cool surroundings.

The first signs of scab, that will be noticed by the flock master, are signs of restlessness and scratching, especially noticeable when sheep have become heated through driving, or sudden rises of temperatures. They bite themselves and want to scratch, and rub on anything available. The wool becomes what is known as "broken" by these efforts. The skin of any sheep showing a tendency to scratch, or having a broken fleece, should be carefully examined for reddened areas, small pimples, and a thickening of the skin. These can readily be detected by pinching up a portion and comparing with healthy, surrounding skin.

As the disease progresses, these pimples heal and form an exudate, which soon hardens into crusts and scabs, which at first are yellow, and later become dark in color, rapidly growing in size. If not treated, the wool falls out, leaving areas devoid of wool, covered by dark crusty scabs, with the skin greatly thickened. If not treated, many of the animals die.

In order to be positive in your diagnosis, take scrapings from the surface of the skin immediately surrounding the scabs. Scrape this area with a dull knife blade, and transfer the scrapings to a piece of black paper. Warm the paper to about body temperature, and by the use of a low power hand lens the small gray colored mites can be seen moving about.

If these mites are found, positive

evidence of the existence of sheep scab is determined. Immediate preparation for dipping your sheep should be made. Dipping consists of immersing the sheep in a medicated solution that will kill the mites.

Although sheep scab is comparatively rare, except in some portions of the west, and is practically unknown in the northern districts, it is well to be acquainted with the symptoms and so prevent serious loss.

Lime and sulphur, nicotine and sulphur, and some coal tar preparation are on the market as dips. Those best suited to your needs will depend a great deal on the kind of water (whether hard or soft) available. The Bureau of Animal Industry at Washington, D. C., has the latest and best information on dips and on the most practical dipping methods. As a result of Federal and State activities in eradicating scabies, it is rapidly being brought under control, and will thus gradually disappear.

Heaves

HEAVES is a disturbance of the respiratory and digestive organs, characterized by an easily indrawn breath and a difficult expelling of this indrawn air. This expelling is accomplished by two distinct efforts; the first being the natural effort, accompanied by a special contraction or movement of the abdominal muscles.

A rather characteristic cough usually appears before much change in breathing is noticed.

Heaves is caused by improper feeding, the use of excessive amount of over-ripe tame hay, or dusty clover, causing distension of the digestive organs, and especially of the stomach, which in turn produces pressure on the branch of the pneumo-gastric or tenth cranial nerve, which also supplies, in part, the heart and lungs. Heaves is never found in wild horses, horses in



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pasture, or horses that have been properly fed.

To prevent heaves, feed smaller amounts of roughage, dampen dusty foods, and feed more grain. With horses that are great feeders, use sawdust for bedding in place of straw or hay, as many greedy feeders will eat the bedding.

Heaves is a disease caused by bad feeding, and when noticed the damage is generally permanent, which greatly lessens the animal's market value. The horse is generally troubled with chronic indigestion. The disease does not respond satisfactorily to medicinal treatment, although it may be concealed somewhat by the use of certain drugs (temporarily). It can be greatly relieved by proper feeding.

QUESTIONS and ANSWERS

I HAVE a three-year-old cow that seems to eat most unnatural foods, such as horse manure, paper, and all kinds of indigestible things. What's wrong, and what can I do to stop it?

P. L., McGrath, Minn.

The cause of your animal having such a depraved habit is indigestion or lack of a correct ration. Give abundance of good grain, bran and hay, also feed small amounts of bone meal—about 2½ oz. per day—in the grain ration.

I HAVE a horse that goes lame in front every time I drive faster than a walk. It is especially noticeable on hard roads. Could you tell me what is wrong, and what could be done, as he appears sound.

S. W. J., Janesville, Wis.

Examine fore legs on each side of the metacarpal bone, (cannon bone) for small tender spots, or small hard swellings, painful on pressure. If such swellings or tender spots are found, your animal is undoubtedly troubled with splints.

Splints are not, as a rule, serious unless near the knee, and as your horse is presumably young, he will probably outgrow them. A mild blister might hasten their recovery. Avoid hard driving on hard roads.

ONE of my best milch cows has what is called "lumpy jaw." Have been using potassium iodide in the feed for some time, but fail to see any result except loss of milk flow. What would you advise?

H. R. B., R.F.D., Escanaba, Mich.

If the lump or growth is movable, have it removed by a competent veterinarian, and follow his direction for after treatment. Potassium iodide must be given in such large amounts to benefit actino, or lumpy jaw, that it will cause emaciation, loss of milk secretion, and general unthriftiness. Lumpy jaw is a very unsatisfactory disease to treat, except by operation.

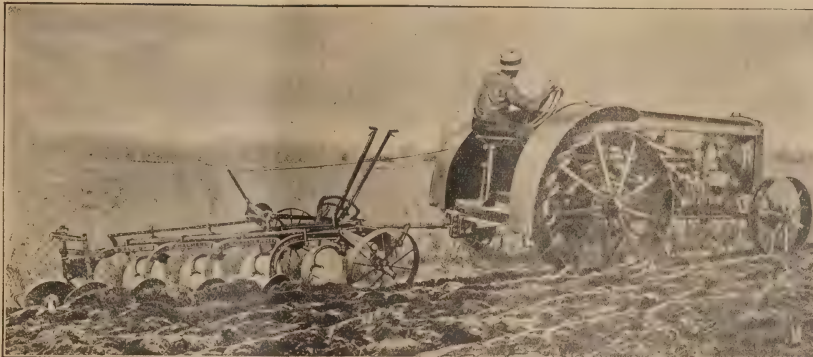
IN WHAT WAY does "farcy" differ from "glanders," and is there a cure?

J. H. K., Iola, Wis.

Farcy and glanders are the same disease, caused by the *Bacillus Mallei*. It is highly infectious to horses and mules, and is readily transmitted to man.

Glanders is generally associated with disturbances of the lungs, nose and its linings, and is characterized by a peculiar sticky discharge from one or both nostrils, from ulcers formed on linings of the nose, and sometimes the animal has a chronic cough; while farcy, caused by the same germ, makes its appearance in the skin and superficial lymph glands, causing swellings, and later ulcers or farcy buds, which discharge a sticky pus. These sores may heal, leaving a scar. There is no cure for either. If either glanders or farcy is suspected have the horse mallein tested at once.

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Quality in a Tractor of Superior Performance

The most important consideration in your selection of the Allis-Chalmers 18-30 Farm Tractor is the reputation of the company that builds it.

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26½ inch clearance for cultivating. Operator rides over implement or on implement seat. Plowing ability up to 2-12" bottoms. All working parts dust-proof and immediately accessible.

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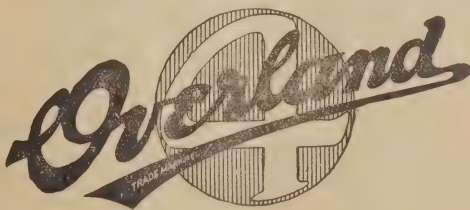
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Cloverland Magazine, Circulation Department, Menominee, Michigan.

Gentlemen: Tell me, without obligation on my part, all about your spare time money-making plan. I have some spare time to sell for cash.

Name
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Anticipate your automobile wants. Insure against the annoyance of delay in delivery. Order your car now.

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Financial Department

RESTORE FAITH

By GEORGE C. DREHER

Asst. Cashier First Wisconsin Nat'l Bank, Milwaukee

THE world is today filled with turmoil and unrest, as the result of the terrific strain of the great World War on the nerves of the people. The nations of Europe are confronted with stupendous problems, political, economic and social, that will take years of serious consideration and patient effort to solve and overcome. America, too, has her problems to solve, but her task is child's play as compared to that of Europe.

The situation in America is not as serious as some agitators would have us believe. In the past few years we have added enormously to our national wealth. Industry is affording employment for all who are willing to work and at the highest level of wages ever paid in the history of the country. The farmer is prosperous to a degree hitherto unknown. The amazing increase of deposits in the banks of the country is evidence that plenty and not want is abroad in the land.

And yet, the observer who comes in contact with the every-day life of America cannot help being conscious of the feeling of unrest that is everywhere. People are complaining, and justly, of the high cost of living. The laborer is complaining that wages are not advancing with the soaring prices. The farmer is complaining that what he has to sell is going down in price more rapidly than that which he needs to buy. Almost everyone seems to be more concerned with what the other man is getting than with what one is getting oneself.

Remedies of all kinds have been presented, discussed and, at length, discarded. Remedies being ineffectual, one needs must look elsewhere for the cure. The panacea is not far distant, for it lies at the base of our government. All will be well if we rally around a standard that has stood the test of actual application successfully for over a hundred years, and functioned to the astonishment and admiration of a whole world. It seems to me that what is needed most in the United States today is a welding together of the conservative forces of the country with the slogan, "Back to the Republic—the old Constitution is good enough for me."

The republic represents a middle course between the two extremes of autocracy and democracy. Our fore-

fathers deliberately took the middle ground in planning our governmental scheme because history had told the unsatisfactory story of nations ruled by one man or by the proletariat. How true their foresight was can be seen in the recent revelation of the condition of Germany resulting from autocratic power. If we need a concrete example of the opposite swing of the pendulum, what more striking picture could be drawn than that of Russia and her terrible miseries under the rule of the many?

A middle course is always best. You eat too much and you are sick; you eat too little and you starve. You plant too much corn and you waste seed; you plant too little seed and you waste land. Too much water makes a flood; too little rainfall makes a draught. Autocracy is tyranny in the hands of one man. Democracy may be tyranny in the hands of the many. The ideal government is the representative government of the republic.

A republic maintains the balance for in a republic authority is vested in public officials chosen by the people to represent them. A republic holds a definite attitude toward property and toward law. Individual ownership is encouraged, which results in thrift and individual rights. The administration of justice is governed by fixed principles and by the evidence presented. Alexander Hamilton was the most powerful and forceful of the advocates of the Constitution and James Madison its greatest interpreter. Hamilton published in his journal, The Federalist, Madison's conception of a republic, in which he says: "The effect is to refine and enlarge the public views by passing them through the medium of a chosen body of citizens whose wisdom may best discern the true interest of their country, and whose patriotism and love of justice will be least likely to sacrifice it to temporary or partial considerations." . . . "Hence it clearly appears that the same advantages which a republic has over a democracy consists in the substitution of representatives whose enlightened views and virtuous sentiments render them superior to local prejudices and to schemes of injustice."

It is for you and for me to create
(Continued on page 28)

OUR Certificates of Deposit afford a convenient and secure manner of investing any desired amount—with the principal always available.

CITY NATIONAL BANK
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CATTLE and Sheep Men locating in this vicinity will find us both able and willing to assist them.

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BE THE BANK FOR YOU

SAULT STE. MARIE, MICH.

These Strong Cloverland Banks Are Ready and Willing to Give Every Possible Co-Operation to New-comers. They Invite Correspondence.

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Capital \$200,000.00

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ESCANABA

is the leading city in Cloverland.

The leading bank in that city is the

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Correspondence invited.

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Ewen, Michigan

Officers: L. Anderson, Pres.; J. S. Weidman, Jr., Vice Pres.; E. J. Humphrey, Vice Pres.; A. M. Anderson, Cashier. Directors: L. Anderson, Calderwood, Mich.; J. S. Weidman, Jr., Trout Creek; E. J. Humphrey, Ewen; J. N. Howlett, Bruce Crossing; J. P. Folsom, Ewen; Nugent Dodds, Ewen; A. M. Anderson, Ewen.

First National Bank of Iron River

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Resources Over \$2,000,000.00
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Capital \$200,000
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3% Interest paid on Savings Deposits.

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Your business inquiries will receive prompt and courteous attention.

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Green Bay, Wis.



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A place where you will have no difficulty in disposing of your fleeces year in and year out.

A buyer who will always pay for your wool at the standard rate, and who will be interested in keeping your flock healthy and large.

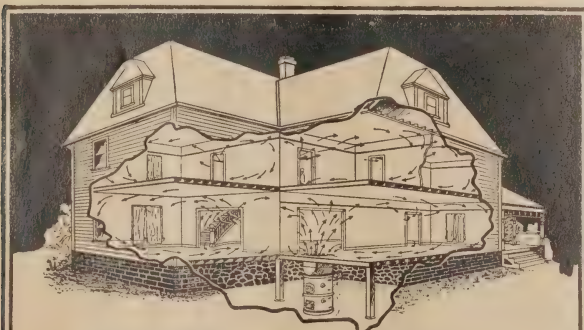
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We have been pioneers in work of this sort for the Cloverland region, and in buying our product you are not only getting full value in woollen clothing—you are enriching your farm and enlarging your prospects.

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"Bigger-Than-Weather"

Made by
F. A. PATRICK & CO
DULUTH



Heat Your Entire House From One Register

SIMPLE — WARM — COMFORTABLE

Just this one large register. The hot air comes up through the center circle and the cold air goes down the other compartment between the circle and the border. It's right over the **Quaker Pipeless Furnace**.

More heat—and just where you want it—always ready. To warm that cold room, just open the door. The

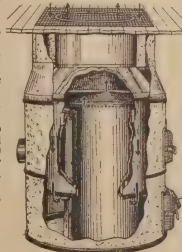
Quaker Pipeless Furnace

has no pipes, no bulky cold air returns. Your walls are not torn up, no cellar is too small. Will burn any fuel. Particularly adapted to soft coal. Special humidifier keeps the air always moist.

The furnace is built of heavy boiler plate steel, no cemented joints to leak gas, dust or soot. Fire pot lined with high-test fire brick, capable of withstanding 3400 degrees of heat. An abundance of clean, pure warm air sent to every room. Simpler than a stove to operate, cleaner, more saving of fuel, and much more healthful.

Sends heat to every room in the house. Ventilates as well as heats. Changes and purifies the air to every room. Keeps the cellar cool for fruit and vegetable storage.

Write **MARSHALL WELLS CO.**, at Duluth, for advice as to size to use; price will be quoted and order handled through your local dealer.



Arrows show direction of air currents

Consult Your Banker

By **L. G. FOSTER**, Asst. Director, Wisconsin Division of Markets

THE farmer is annually swindled out of millions of dollars. Oil wells, rubber plantations, packing plants, automobile factories, gold mines, catalogue companies, insurance companies, and countless other schemes are born daily—with the intention of "feathering the nest" of the promoter. Oftentimes an unscrupulous banker or an influential farmer will be bribed into backing an organization that can never succeed.

The farmer of today works too long and too hard to pay into the pocket of the promoter a large share of his meager profits.

Before taking stock in any "get rich quick" scheme consult your banker, find out how much of your money goes to the promoter who is selling you stock, find out who is to manage the company and other details concerning liabilities and assets.

The average farmer in Wisconsin can invest what surplus he may have to better advantage by improving his live stock or grain or by investing in

a local marketing association owned, controlled and managed by the farmers and for the farmers. Too often, it is difficult to procure enough funds to finance a worthy enterprise in which the welfare of the farmer is at stake, because the "silver tongued" promoter has induced the farmer, by promises of large returns, to invest in a "wild oats" scheme the details of which are absolutely foreign to his understanding.

The Holstein-Friesian Association of Michigan is making a statewide drive for membership this year. The purpose of the campaign is to establish a strong, well financed organization with a secretary whose entire time will be devoted to the Holstein industry in Michigan.

"The British government announced that 300,000 carcasses of lamb and mutton have been shipped to the United States," cabled the American Agricultural Trade Commission at London, to the U. S. Department of Agriculture Bureau of Markets on Feb. 28.

Restore Faith

(Continued from page 26)

the desire among men of "enlightened views and virtuous sentiments" to represent us in our legislative bodies. The time has come when the highest type of men, men who know our government and our people, should be our representatives. Then after having placed the responsibility of the legislation in the hands of real leaders we can go about our plowing, for we will know the affairs of our government are in the hands of competent and interested specialists.

There are some people who are of the opinion that the only panacea for the ills that are afflicting us today is to change the Constitution and the basic law of the land. The soap box orator is everywhere; the radical agitator never was as numerous as now. Tons of literature are distributed setting forth the advantages of socialistic experiments, such as the initiative and the referendum; the recall of the judge who cannot be swerved from the course of equal justice, and the recall of the public official who has the courage to administer the laws impartially and fearlessly. Not content with flooding our mails with this pernicious literature, speakers are sent throughout the length and breadth of the land, introducing these ideas in a subtle manner, not only through the legitimate lecture platform, but also through the pulpits and the schools.

We do not need more radical reform. What we need is to stop, ponder and reflect on our course. More work and less talk will result in greater production and a more settled state of mind for us all. As Charles M. Schwab says, the thing for Americans to do is to realize fully the importance and need for greater production. More production means lower costs and consequently lower prices.

With a sane rational approach toward our day's work; with the casting aside of the extravagances and the desire for orgies of spending; with a willingness to work that production may meet demand, the great American public will march forward.

The First National Bank of DULUTH

At the Center of Cloverland

CAPITAL, SURPLUS and PROFITS

\$3,250,000

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Talk your problems over with us or consult us by mail.

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Iron Mountain

Iron Mountain, Michigan

Resources Over \$1,600,000

Officers:

E. F. Brown, President; J. C. Kimberly, Vice-President; W. J. Cudlip, Second Vice-President; F. J. Oliver, Cashier; Leo H. Mortensen, Assistant Cashier; J. W. Franson, Assistant Cashier.

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AMERICAN EXCHANGE NATIONAL BANK

OF DULUTH, MINNESOTA

Checking Accounts

Savings Accounts

Travelers' Checks

Foreign Exchange

Safe Deposit Boxes

Bond and Trust Department

Total Resources, December 31st, 1919 Over \$20,000,000.00

Boys' and Girls' Puzzle Problem

"WHAT are eggs a dozen?" Mary asked.
 "Two more for 24 cents," said the grocer, "would make them 2 cents per dozen less."
 "Then," said Mary, "I will take 24 cents worth."
 How many eggs did she buy?

A cash prize of \$5 will be given the boy or girl who is first to send to Cloverland Magazine the correct answer and the best solution of the problem. All others sending in a correct answer will be given free a one year subscription to Cloverland Magazine. Address, Puzzle Editor, Cloverland Magazine, Menominee, Michigan.

The answer to the Boys' and Girls' puzzle in the March number of Cloverland Magazine, is thirteen birds flew away.

Margaret Smartt, of McClave, Colorado, won the \$5.00 cash prize for offering the first and BEST SOLUTION of the "Canary Problem." She gives a very clear solution in arithmetic.

The Puzzle Editor was deluged with answers to the Canary Problem, letters coming from all parts of the United States. It was a task to keep sort of the solutions as they arrived, as the time of transmission of the magazine and answers had to be recorded in order that all boys and girls in the United States might have a fair show to win the first prize. Otherwise, the boys and girls of Cloverland would shut out the boys and girls living in other parts of the country in the contest each month, as the magazine is delivered to them more quickly and they may even have their answer in

the office before the magazine is received in some far western home, or in the southwest. For this reason the time for delivery of Cloverland Magazine and the return letters are carefully taken into consideration to give all a fair show.

Actual time calculation indicates that this little girl in Colorado must have sat right down to solve the puzzle the very minute the magazine arrived, and mailed her answer on the first train eastward. The postmark on the envelope shows that the letter was mailed the same day the puzzle was solved. The hour of delivery at Cloverland Magazine office also is recorded to determine who is first with the BEST SOLUTION.

Right here is one point our puzzle solvers must bear in mind. They must show how they solved the puzzle, and not merely give the answer, or give an answer with proof showing it to be correct. The Puzzle Editor wants to know the process used to solve the problem; and these solutions are submitted to the judges. Quite a number of answers had precedence in time over that of the winner, but failed to show how the problem was solved.

Here is the way the little girl in Colorado solved the problem:

1 equals number of birds left in the cage.
 1½ equals the number of birds that flew away, less 2½.
 1 plus 1½ equals 20 minus 2½.
 5-2 equals 17½.
 ½ equals 3½.
 1 equals 7, the number left in the cage.
 1½ equals 10½.
 10½ plus 2½ equals 13, the number of birds that flew away.

Hairy Vetch on Light Soils

By J. R. LACOMB

I HAVE been growing hairy vetch as an occasional crop for the past fifteen years and find it to be an exceptionally good forage crop for light soils. On the heavier soils the growth is ranker and is apt to be damaged by mould, as the shade is so dense that the surface of the soil does not dry out quickly after rains.

When properly cured for hay it is at least equal to alfalfa hay as a dairy feed. Fed to milking cows, with cull potatoes, I have received as large returns in butter fat from them as when they were fed good mixed hay and such mixture, and quantity of grain feeds requisite to a balanced ration.

I find it to be, in this section, a hard plant to make into good hay, as care must be taken to dry it so as to retain most of the leaves, hence it must be cock-cured in a very large degree. It cannot be windrow cured, as the side delivery rake will leave it in such a winding tangle that it is almost impossible to do anything with it. It should be cut for hay when the first pods begin to fill. Sown in the spring with oats, the crop may be much more easily made into hay of a very good quality for sheep or dairy cows, and, in most cases, the vetch will grow another crop the following spring, that may be cut for hay or left to ripen for seed.

The yield of seed has varied with me from one to eighteen bushels per acre; the crop being subject to a blight similar to that of the bean.

For the past five years I have grown it with winter rye, as a cash crop, and have learned that the vetch and rye should be sown not later than September 10, (August 10 is preferable) in a sweet soil, and that it pays to inoculate the seed if vetch or field peas have not grown thriftily on the land.

The crop of 1918, that attracted the attention of "The County Agent," was grown on a four acre field of gravelly and loam, that was badly infested with quack grass that had been cut or hay early in July. The field had been plowed and fitted, and was sown about August 15 with a mixture of one bushel of common rye, and twenty pounds hairy vetch, per acre. After seeding, the field was top

ressed with thirty spreader loads of spent manure.

The crop made a good autumn growth, wintered nicely, and by July 1, 1918, stood six feet high, as the average, and promised a maximum yield of seed. It was blighted soon afterward, and the seed yield was another disappointment.

When the rye was dead ripe, we harvested the crop with a binder, leaving the sheave on the ground until drawn to the threshing, that placed the straw in the mow.

The cost of this crop was plowing, 25 hours; discing, 8 hours; harrowing, 12 hours; seeding, 4 hours; applying manure, two men, 10 hours; harvesting, 4 hours; hauling, two men, 3 hours; threshing, five men, 3 hours; cleaning and separating rye from vetch 6 hours.

The yield was 700 pounds of vetch seed and twenty bushels of rye. The vetch was sold at 14 cents per pound, at home station, and the rye ground into flour and feed, having a market value of \$41.60.

The straw, about five and one-half tons, containing some quack grass hay, was fed in conjunction with one-third as much oat straw to a flock of bred ewes at the rate of three pounds per head per day. The ewes also received a 50-50 mixture of oats and bran.

On this ration the forty-two ewes made an approximate gain of twenty pounds per head, sheared an average wool clip of ten pounds each, and raised forty lambs of forty-seven dropping.

I believe that the man with sheep can afford to gamble with a crop of rye and vetch.

It is a small matter—only 6,000 cattle and 16,000 sheep died as the result of poisonous plants in western ranges—American Sheep Breeder. No poisonous plants have been found in Cloverland.

Somehow, the farmer can not bring himself around to the "daylight saving" idea, as expounded by the solons of the cities.

Quality Tires

The Amazon is a Quality Tire through and through.

Quality means unusual wearing qualities—less trouble—greater resilience than you could hope to receive from ordinary tires. It means true tire economy.

Amazon users have come to expect much from their tires. They know through their trouble-free experience that the Amazon is the most reliable and dependable of tires.

Let Your Next Tire Be An Amazon

DEALERS: Write for our dealer proposition.

Northern Hardware & Supply Co.
 MENOMINEE, MICHIGAN

Rubber Blacuts Ready for Shipment on Upper Amazon River.



Do You Know—

that if you ship your potatoes to

PLATTEN PRODUCE

CO. WISCONSIN

you can realize the benefits of any other market's prices?

ASK US WHY

you get quicker returns by from two to ten days—and you have the satisfaction of dealing with a home company. We are located at

The Gateway of Cloverland

Ship us that car of potatoes you are loading

Reference: "Your Bank



Mackinac Island

The
Summer Resort
of America



The art work of nature, Indian legend, and panoramic scenes that have made history in time of war and in time of peace all blend in harmonious welcome to tourists entering Cloverland through the southeast gateway, or bid adieu to the traveler after a sojourn at the wonderful Mackinac Island.

The island is justly famed for its scenery. The heights command views of sea and shore, ever changing with the varying lights and shades of the hours and the movements of passing ships. Well kept roads—thirty miles of them—lead in various directions from the village, through the woods, amid curious rock formations, now along the edge of the bluff with vistas of the lake, and again to some open outlook, whence the panorama is bounded only by the limitations of vision. There are glens and ravines innumerable; open spaces which were the ancient gardens of the Indians; and delectable parks, whose clumps of shrubs and trees are so effectively arranged that one at first thought credits the artistic effect to the skill of the landscape artist rather than to the caprice of nature.

WRITE OR WIRE FOR RESERVATIONS

GRAND HOTEL COMPANY

MACKINAC ISLAND, MICH.

LOGAN BALLARD, President CHARLES A. HOLDEN, General Manager



Out of Doors—

Conducted by A. N. WALLACE

PROPER game protection has been a sort of fetish with Bill and myself.

We have wanted good hunting, and good fishing for every sportsman; but we have always been against the slaughter of game, either by sportsmen or by natural enemies, unnatural conditions, and the onward creep of civilization.

We want to see our deer, and for that matter, every other wilderness creature, given a chance.

With the advance of agriculture—with farmers creeping northward, settlements growing rapidly, villages and towns springing up—there isn't much left for the wild things.

Naturally we don't want to protect game first, and agriculture next. We

have heard that certain settlers, living pretty well back, have lost crops through deer, and other woodland creatures. But after all, we doubt that there is very much loss, and we rather think that it is the game rather than the farmer that suffers in most localities.

And now comes Charles E. Chipley of Sault Ste. Marie, Mich., with a most excellent summary of the game situation. Mr. Chipley speaks more particularly from the viewpoint of Michigan, but he marshals an array of facts that apply to every state where remnants of game still remain, and he presents these facts and arguments so well, that we want every reader to consider them carefully.

Here is Mr. Chipley's story:



Walt Sykes at 82—North-Country Trapper

WALT SYKES—trapper!

The death of Walt Sykes, at Sault Ste. Marie, Mich., breaks one more link in a weakening chain, coupling the romance of the early pioneer days of the north with a modern, machine-driven world.

Born in northern New York State, Walter W. Sykes came to the North Country about 1870, in the days of pine timber and fur. Since that time he has taken his living from the woods.

He always worked alone, and he spent his winters deep in the virgin forests of Canada, following his trap lines without even the companionship of a dog. It was his boast that he could sleep comfortably outdoors in the depth of winter, curled up against a log with one blanket for cover.

Late last fall Walt built his one-room log cabin and set his trap lines two hundred and fifty miles north of Sault Ste. Marie, and the limits of settlement on the north shore of Lake

Superior. While making these preparations for his annual winter work, Walt celebrated his eighty-second birthday, apparently as hale and hearty as ever. He came to the Soo about Christmas time, to obtain his supplies for the balance of the winter, and it was while he was packing these supplies into his cabin that he was taken sick. He headed for his home at Sault Ste. Marie, but died a few days later.

THE passing of men like "Walt" is one of the reasons for the gradually lessening supply of the fine northern furs. The encroachment of civilization has driven the fur-bearing animals of the north far back into the Canadian wilderness, and the men who are able to stand the hardship and loneliness of this work are dying off, with none to take their place.

Walt knew the north when its sole industry was the gathering of furs. He lived to see the roaring Soo Rapids



The Lure of Cloverland's Forests & Streams



of the St. Mary's River harnessed and utilized for power, and the building of the great Soo Locks, carrying the largest inland traffic of the world. After a life of hardship and loneliness constantly following the receding line of the wilderness, he died amidst the thousand sounds of industry and traffic in the city which was but a primitive frontier settlement in the days when he first knew it.

WE no longer question the necessity of game legislation. We realize the value of game in the advancement of any state as a resort country. Every sportsman is keen for the preservation of that most typical and lovely of our forest creatures—the deer.

Present laws are concerned mostly in curtailing and preventing the killing of game. There are few laws which result in its increase, artificially, and the destruction of its natural enemies.

If game is worth preserving it is necessary that the states pay a sufficient number of competent men to enforce the laws, and establish some method of assisting in its propagation, is the established practice in the case of game and commercial fish.

Admitting therefore that all citizens are equally interested in game as an asset, and that it is good business to pay at least a portion of the return which it brings to the state to a sufficient number of competent men to take care of it, it should be possible to revise the laws in accordance with those of other states that have successfully averted the problems.

Maine is probably the best known and most easily accessible hunting ground in America. Its game has not only been preserved but is increasing. The results of recent legislation in Pennsylvania also are remarkable. Both these states are easily and comfortably reached from densely populated centers of population, and they are both old settled states. In reality their native game was shot out years ago, but a progressive policy in game legislation finally preserved the remnants and ultimately increased the actual big game, birds and fish beyond their former natural numbers.

BOTH these states have judged it economy to devote sufficient money to their game departments to enable a thorough patrol of the hunting country and enforcement of the game laws by a system of game wardens.

In the State of Maine the game department is under the Commissioner of Inland Fisheries and Game, who explains its operation as follows:

"There are two classes of wardens in this State, one appointed by the Governor upon recommendation of his department and another, deputy wardens, appointed by this department. They have equal authority—the only distinction being that the wardens appointed by the Governor serve for a term of three years, while commissions issued by this department expire with the calendar year in which issued.

"When our full staff is on duty we usually employ from seventy to seventy-five wardens on full time and approximately twenty-five on part time. We also appoint many wardens without pay from this department—men to receive pay for their services in the form of legal fees to which they would be entitled to be paid them by a court out of fines paid by violators. Of course, occasionally some of these non-pay wardens may be deleted by us to perform some special duty in which case they receive a per diem allowance and their necessary traveling expenses.

The compensation of our regular wardens varies from \$2.50 per day to \$100 per month, and necessary traveling expenses while on official duty away from their headquarters.

"The Commissioner of this Department is appointed by the Governor. There is no other State Committee or Commission which aids the department without compensation. It is a one-man board.

"It is also the duty of fire wardens to act as game wardens and game wardens as fire wardens. Sheriffs, deputy sheriffs, police officers, and constables are possessed with all the powers of game wardens and receive for their services the same fees.

"In addition to this machinery for the enforcement of the game laws the registered guides of the state, who are licensed by the Commissioner, and responsible solely to him, are most efficient protectors of game, acting as guides to non-resident resorters and being scattered throughout the state, unknown and unmarked by official designation, they are a constant menace to the game poacher."

The commissioner in his report for 1918, says of the value of game to Maine:

"Few even of our own people realize what this great industry means to the inhabitants of Maine, if properly conducted, irrespective of politics or personal favor, and fully supported by the law-abiding citizens of every county.

"Two hundred and fifty thousand people visit the state each year and distribute \$50,000,000.

"One thing is sure—no industry in Maine begins to bring in such vast returns for the amount expended as does fish and game."

He points to the two sections in the law which he believes are most important to the fish and game interests of the State, as follows:

SEC. 43.—"No owner or keeper of any camp, house, or other building, used partly or wholly in lumbering operations, or employee thereof, shall use, consume, or have in possession at any time, at said camp, or serve to any employee thereof, any deer or moose or part thereof, under a penalty of Two Hundred Dollars and costs for each offense."

SEC. 63.—"Non-residents of the State shall not enter upon any unorganized or unincorporated township of the State, and camp and kindle fires thereon, while engaged in hunting or fishing, without being in charge of a registered guide, and no registered guide shall at the same time guide or be employed by more than five non-residents in hunting."

The Commissioner says:

"The future of our game is largely in the hands of the honest guides, and the Commissioner seeks their hearty co-operation with the wardens of the State. I believe that as a class there are no better men or more loyal citizens than those who follow the honorable and fascinating calling of the Maine guide."

Maine, therefore, depends primarily upon the efficient enforcement of the laws for the protection of its game, and to a great extent upon the natural propagation of its game under such protection. A considerable influx also can be counted upon from the forested country of New Brunswick to the north.

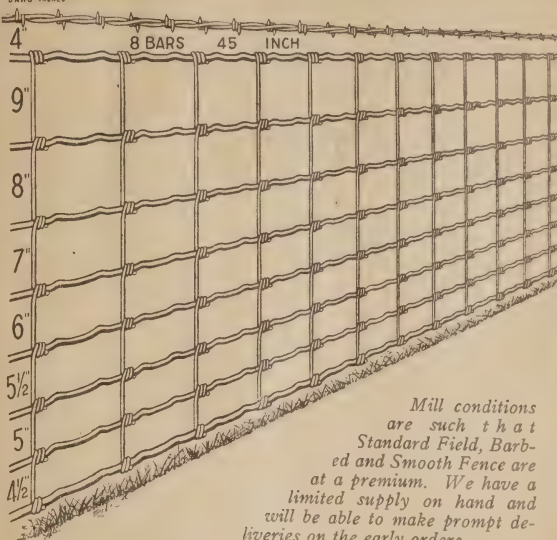
E. F. Wolf, writing in "Outing" for January, says that the "Pennsylvania Idea" which has yielded marvelous results is briefly this:

"The formation by state legislation of a Board of Game Commissioners consisting of six members, no two from the same legislative district, all six to serve without salary or other

(Continued on page 40)

Now Is the Time to Place Your Order for All the Wire Fencing You Will Need This Year

DISTANCE
BETWEEN
BARS—INCHES



Mill conditions are such that Standard Field, Barbed and Smooth Fence are at a premium. We have a limited supply on hand and will be able to make prompt deliveries on the early orders.

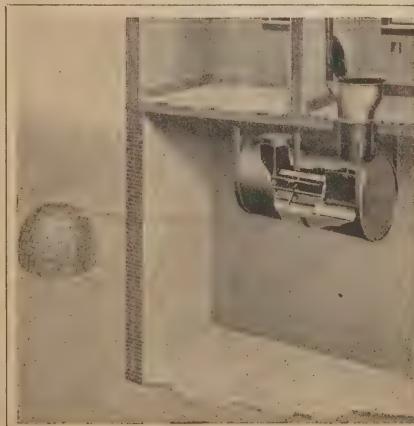
WE carry a complete stock of sheep and cattle Fencing, Roofing and Hardware Fixtures for stock sheds and ranch houses. Our warehouses are so situated within the Cloverland territory that we are able to make prompt deliveries.

A complete line of Dynamite Fuses and Caps for spring land clearing

Send us your requirements and prices will be sent you the same day your letter is received.

Northern Hardware & Supply Company

Wholesale Jobbers
Long Distance Phone 400
MENOMINEE, MICHIGAN



YOUR home is not complete without proper facilities for taking care of waste matter.

The Lav-oilet

disposes of excrement in a highly sanitary way and is absolutely odorless.

Complete Information upon request

THE STANDARD STEEL CORPORATION
1253 30th St., Milwaukee, Wis.



Woman and the Home

By HARRIET L. HARLOW



THE NEW BABY'S WARDROBE

WHAT is a healthy baby worth? The value could not be told in figures.

The baby must have the right start in life to be healthy. Care, food and clothes are the first three essentials for the new baby. Preparations must be made before baby's arrival. Wool is nature's clothing, and fine wool is the natural clothing for the new baby. The materials for baby's clothing should be as fine and soft as the pocketbook will permit. Everything must be of the best quality obtainable, and many changes are needed. So it is well to have on hand many warm flannels and plain, simple slips.

The baby's basket should contain:
Pure castile soap.
Pure talcum powder.
Antiseptic cotton.
A very soft baby sponge.
A pin cushion containing an assortment of safety pins.

White vaseline.
Soft brush and fine comb.
Several squares of soft, old linen.
Here is the list of clothing that should be on hand:

Four bands, four skirts, four flannel petticoats, four muslin petticoats, six dresses, three sacques, two flannel slips or wrapper, four pairs of stock-

ings, two pair of long booties, four dozen napkins, four dozen squares of old and soft muslin, four to six night gowns, one coat, one bonnet, two flannel squares, two light weight cheese-cloth comfortable or one pair of light weight woolen blankets, six small crib sheets, and one heavy pad for the mattress protector.

The bands should be torn from fine flannel in strips 18 inches long and four inches wide. Never hem them, as these bands are used for a few weeks only, and then the knitted band with shoulder straps takes their place.

The shirts should be light weight wool and silk, or wool and cotton. They must not be allowed to creep up on the band, but should be pinned down in place over the stomach on the napkin. The warmer a baby's stomach is kept with the band and skirt in place the better the baby.

The flannel petticoats should be entirely of light weight material made princess slip shape, 23 inches long, reaching from the neck to three inches below the feet, and fastening on the shoulders. The white petticoats are cut the same shape, but made a half inch longer and a little wider.

The dress should be a simple slip of nainsook, lawn, or other light

weight material. It must be one-half inch longer than the white petticoat. The sleeves should be set in and made long enough to cover the wrist.

The best material for night gown is outing flannel. They should open down the back and be tied at the upper back, or close down the front with buttons. Never put buttons on the back of a baby's garment. A shirt, night gown, napkins, small blanket and night stockings made of flannel are all the baby needs at night. During the winter it is well to protect the head of a small baby with a cap or blanket to prevent cold and earache.

Never allow anyone to cough near the baby, or anyone with a bad cold to come near it. A mother should not use her own handkerchief on the baby. It is much better to have a soft handkerchief near for baby's exclusive use. The baby should sleep, be fed and bathed at regular hours. It should have plenty of fresh air night and day, and be kept clean and in the sunshine as much as possible. A new baby should sleep at least 20 hours out of every 24.

The perfect and safe food for a baby is the mother's milk, so it is the duty of the mother to do everything in her power to increase her ability to prop-

erly nurse it. The health of the baby depends upon the food and care it receives during the first few months. More babies die from improper feeding than from any other cause.

The baby lives the first six months of its life in a bed or basket. Care must be taken to make it comfortable during this period. With the first baby the temptation is strong to have a bassinet with frills, and ruffles, and bows, but it seems to me that a baby in itself is too sweet and dear to fuss up in this manner. Save the money thus expended for the things baby will need later on. Have a pretty basket painted white or a white iron bed, with soft wooly blankets and sheets which can be changed every day.

A very essential point to bear in mind is changing the baby's position, first on one side and then on the other. Always turn from one side to the other after nursing to see that the little ears lay flat.

Bathing and feeding also are very important factors to insure baby's health.

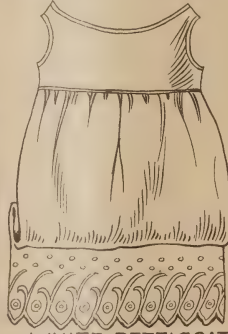
Complete sets of patterns for baby clothing may be obtained at almost any store where paper patterns are sold.



COAT



DRESS



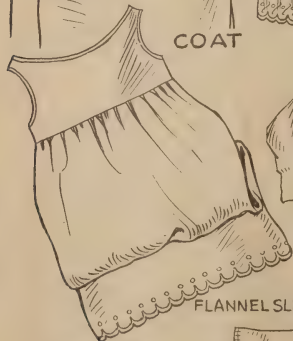
WHITE PETTICOAT



PLAIN SLIP



FLANNEL BLANKET



FLANNEL SLIP



SHIRT



BOOTIES



KNIT BAND



WRAPPER



BONNET



NIGHT GOWN



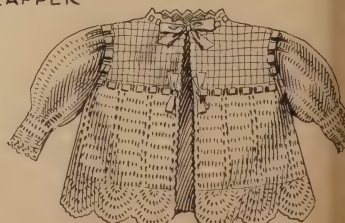
FLANNEL BAND



WOOL BLANKET



DIAPER CLOTH



KNITTED SACQUE

When April Sunshine Brings Spring Dresses

"APRIL showers, bring May flowers" — and April's sunshine brings spring dresses.

April, the real spring month, is here. How eagerly we greet the bright spring days with the deep blue sky

over head, and the warm, green grass just peeping up from its winter home. We can not recall a year when we did not plan our spring wardrobe.

We are all so tired of wearing our winter apparel that we can not have spring clothes too soon. We are all charmed with the wonderful display of the spring fabrics—satins, velvets, taffetas, organdies, ginghams, and cotton ratine.

All vie with each other in color, patterns and weave.

The most important question in style this spring is:

Are women tired of the long, narrow lines, and are they ready to accept the full effect shown in summer designs?

To give every woman a chance to choose a style most becoming designers have planned dress models with wide skirts, and suit models with narrow skirts, making a distinction between styles rather than carrying out only one style idea throughout the realm of women's wear. Then we have the narrow foundation with the full overskirt; also dresses and suits that have many ruffles and frills. Then again a combination of fabrics is found in new materials. This means that the upper section of the garment has one material and the lower section a contrasting fabric, and this in turn suggests the long waisted loose belted, model that we have come to know as the coat dress.

For the youthful figure many of the dresses have fullness at the hip line. This is accomplished in several different ways, sometimes by drapery ruffles, light boning, pocket extension, or great fluffy bows.

For trimmings we find embroideries are used, done both by hand and machine—plaited ribbons, fancy fringe and gathered lace.

For the sleeves this spring the old familiar adage ending with "try, try, gain" has attained a hold on Dame Fashion, for short sleeves seem here to stay. Short sleeves for every wear from house dresses to evening gowns. In the afternoon dresses the three-quarter bell sleeve seems to hold full way.

Separate coats are of great importance this spring, the three-quarter

length being worn most. Mixed and light brown materials are the most popular. Plaited skirts, novelty silks or soft plaid wools in light shades are worn with this short coat.

In trying to find out this spring just what we want and what we can buy, in all probability we have not considered prices. So, when looking over materials to be had and after scanning the prices, we do as the little pig did:

To market, to market,
To buy a fat pig;
Home again, home again,
Prices too big.

We decide we must remodel our old dresses and make them do in order to force Mr. Profitier down on his prices. We figure this is the only way prices may be lowered. How many mothers wish they could go shopping without considering what is the most practical and most inexpensive? Be this as it may, there is more satisfaction in spending a dollar wisely than in squandering one foolishly. So let us continue to plan and contrive, indulging in an occasional luxury as a reward.

This month I have decided to chat on the practical school dress and street styles for the growing up and the grown up. The 16-year-old girl home for the spring vacation will need new clothes—dresses to wear without a coat. A strong silk, ratine, or beach cloth could be used for those illustrated any one of which may be developed from old or new materials.

FIG. 1, is a one-piece dress having a one seam flare sleeve in full or short length. The front closing is a feature, also a novel outline of the lower part of waist and upper part of skirt. This may be more effectually brought out if contrasting materials are used. The skirt should measure about two yards at the lower edge. A tie and a narrow patent leather belt add just the right touch to the style. Here the black satin and blue serge, remnants of plaid and plain materials, or cotton fabrics may be used to good advantage.

FIG. 2, is a fascinating frock for the miss or small woman. This style slips on over the head. The over blouse is in one with the belt which buttons over the panel at the back. The sleeves may be full length, fitted or bell shape. The skirt made of contrasting material as shown is two yards wide at the lower edge. Any combination of material may be used, as the style is extremely simple, but novel and unusual.

FIG. 3, is shown with a broad front and back panel. The round neck without collar adds a

(Continued on page 35)



Lauerman Brothers Department Store, Marinette, Wis.

Modern Business Service

WE want Cloverland grazers and farmers to look at this store in that way. We are here to serve you carefully, courteously and whole-heartedly.



The Marinette Store
Whose Perfect Service by Mail
Reaches Your Very Door

You can purchase by mail just as satisfactorily as if you were in Lauerman's Store in Marinette, doing your buying personally. Your goods are shipped same day order is received.

YOU CAN SAVE TIME, FREIGHT
AND MONEY BY SENDING IN
YOUR MAIL ORDERS TO US.

It will be of great benefit to you to have your name on our mail-order list and receive price lists and quotations on whatever you need.

ROSECO BRAND

Food Products

The Standard
of Excellence
in Greater Cloverland



Follow the Sign of the Rose

Roach & Seeber Co.

Wholesale Grocers

CALUMET, MICH. MARQUETTE, MICH.
HOUGHTON, MICH.
IRONWOOD, MICH. WATERLOO, WIS.



MILK — A Health Insurance

By FLORA McILHINNEY

Home Demonstration Agent, Houghton Co., Mich.

MANY people think of milk as only a beverage rather than as an important food. Milk is the only food which furnishes the body with all the ingredients necessary to proper growth and life.

The value of any food is judged by the calories or heat units it contains. The picture shows the equivalents of a quart of milk as to their food values, while the table shows the money values of the same:

One quart of milk $\frac{3}{4}$ pound lean beef, 8 eggs, 2 pounds chicken, 1 pint of oysters, 4-5 pounds pork loin, 3-5 pounds ham.

Prices obtained on Feb. 4, 1920.

Milk .....	.15c	per qt.	.....15c
3-4 lb. of lean beef.....	.20c	per lb.	.....20c
8 eggs .....	.30c	per doz.	.....30c
2 lbs. chicken .....	.42c	per lb.	.....84c
1 pt. oysters .....	.45c	per pt.	.....45c
4-5 lb. pork loin .....	.38c	per lb.	.....30c
3-5 lb. ham .....	.60c	per lb.	.....30c

This table answers the question "Is the price of milk too high as compared with the price of other foodstuffs?"

Nothing is too high that will bring good health to American boys and girls. It is cheaper than doctor bills, better than pills and medicines and easier to take. Dr. E. V. McCullum, an eminent authority on nutrition, says: "Where there is a high mortality from tuberculosis milk is not being used to any extent, and in any large group where milk purchases are large, this disease is not a menace." Our greatest protective food is milk. While milk will not solve all the problems of bringing up a healthy family, its use will go far in keeping them well and is one of the things on which to build.

The foods in the second picture are equal in protein to a quart of milk, each containing one ounce of protein.

One quart milk, 4 eggs, 6 ounces of medium fat meat, 4 ounces whole-milk cheese, 6 ounces navy beans and one small loaf of bread.

Milk not only contains protein to build up the tissues, it contains important mineral matter for the bones, teeth, nerves and good red blood. This

chart shows that milk contains more lime than most of the common foods, and proves that it should be a part of each meal each day throughout the year:

Kind of Food.	Percent of lime in edible portion.	No. of lbs. to equal 1 lb. milk	Lbs.	Ozs.
Milk .....	.168	1	1	4.8
Oatmeal .....	.13	1	1	11.2
Eggs (14 eggs) .....	.083	1	1	3.2
Carrots .....	.077	2	2	12.8
Cabbage .....	.068	2 1/2	2 1/2	12.8
Prunes .....	.06	2	2	6.2
Oranges .....	.06	2	2	9.6
Lettuce .....	.05	3	3	
White bread .....	.02	5	5	
5 lbs. white flour .....	.025	8 1/2	8 1/2	
Potatoes .....	.016	10 1/2	10 1/2	
Apples .....	.014	12	12	
Lean pork .....	.012	14	14	
Lean beef .....	.011	15 1/2	15 1/2	

These figures are for the edible portions only. As purchased at the store many of these items have considerable waste as bones and paring, cores and decayed parts. Milk is all edible when kept clean. There is no waste.

Milk contains more than these—something called vitamins, which are absolutely necessary to growth, maintenance of good health and life. It is therefore an indispensable food for children, and whole milk should be furnished if the nutrition of the average child is to be maintained and normal growth in height and weight to be assured. This being the case, get the milk down the "kiddies" somehow. If they don't like milk as milk, use it in cocoa, milk shakes, milk soups, ice cream or other ways. It has been said: "Pure, fresh rich milk is a food fit for the gods."

To quote from one war authority, "While we lost eight of every 1,000 soldiers, we are losing more than 100 children of every 1,000 born." Those who boasted that their children were properly fed without milk, must face the fact that from a third to a half of the boys examined for military service were turned down as unfit because of malnutrition; 4.2 per cent of the Michigan men rejected had poor teeth. Lime in milk is essential for good teeth. It is the best food we have. It requires no preparation and has no waste; it is the most thoroughly digested of any food, and Osborn and Mendel say "that milk, prop-



erly heated does not lose its food value."

Then use milk for breakfast in the form of cocoa, with cereals, with toast, or just as a beverage, giving it warm to the younger children. For the school lunch, see that it is served hot in some method; as cocoa, milk soups, escalloped dishes, or custards. At night, cream soups, creamed vegetables, junket cottage cheese or des-

serts. Be very sure that each child receives his quart of milk in some way during the day.

Recipes for milk cookery may be obtained by telephoning or writing to your own Home Demonstration Agent in your county. Just ask her for a few, then try them. Measure and place in a crock one quart of milk for each member in your family, and then use the entire amount each day.

When April Sunshine Brings Spring Dresses

(Continued from page 33)

harm to the young miss. This may be developed in a pretty check or plain material, with a full length or short sleeve, the length of the sleeve depending mostly on the time of year the garment is to be worn.

FIG. 4, is illustrated in satin for a girl 14 to 16 years. The garment has long waisted sides of striped material cut on cross of the folds. The sleeves are of stripe material running up and down. A belt is run through, fitting in back and front defining the waist line. Large and small buttons covered with plain material are used for trimming. Any one of these four styles for the miss will be equally suitable for the small woman who finds difficulty with the larger patterns. It is often advisable for the woman whose figure is youthful and tender to select styles designed for the miss.

Any of these four styles may be developed in gingham.

Just for a few who may want to make some voiles or organdie dresses early I am going to plan a design or two for them. Everything must be full and fluffy. Ruffles, ribbons and tucks are seen, also lace edging gathered and applied. The voiles come in almost every shade with large figures to represent the figured georgettes. The organdies are plain and figured, some showing tiny embroidered figures in the pale colors.

FIG. 5, is a draped waist with sash ends; body in one with sleeve in short or three-quarter length and a



5.

tucked or straight skirt. The plaiting may be made of the same material, or fine lace may be used. If the design is developed in a figured voile, a narrow satin ribbon gathered or plaited is pretty for the ruffles.

FIG. 6, is a lady's model, has the kimona sleeve or dropped shoulder with bell sleeve. The neck has no collar, but is cut very low in front with a tucked vest. The skirt is a two-piece model having upper and lower section. A self-same girde of four inches is used to bunch the loose blouse effect.

FIG. 7, is another model of figured voile, which could be developed in the plain material also. This design has the popular round neck, back and front, with the short kimona sleeve and a tunic which is encircled with ruffles of same material, or taffeta ribbon. The ruffles also outline the armhole and the edges of the cuffs and collar. A smart little feature shown here is the little gathered peplum on the bias girde which tends to make the slender figure look full.

FIG. 8. Last but not least this month comes a model with long, straight lines which are particularly good for the full figure. A stout or full figure should never wear kimona sleeves. This design may be developed in fine check in lavender, pink or blue, with white organdie trimmings. The soft shawl collar winds into a sash in the back, and the panels down side front and back tuck up under the hem.

All of these frocks have been designed and planned to aid the home dressmaker who is able to follow a sketch. There are no patterns for these designs, and they can not be purchased in stores, but any home dressmaker may buy a plain pattern and create her own dresses from these designs.

There is such a variety of styles and materials this spring that all individual fancies may be satisfied, a rare opportunity for obtaining a distinctive design in wearing apparel that is so dear to every woman's heart. It is indeed seldom that such wide latitude of selection is given the discriminative home dressmaker.



7.



8.



An Invigorating Table Beverage

—a real part of the meal, not merely something to drink with your food—

POSTUM CEREAL

If you feel that something interferes with your health, stop tea and coffee and use this popular drink.

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No raise in price.

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by using cheap ingredients is poor policy. Yet many a dessert has been ruined by the use of inferior flavoring extracts.

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JAMES H. KAYE, President



A Sample of the Vast Acreage the Hon. Fred D. Sherman Is Successfully Converting Into Profitable Farms.

What One Man Has Done For His State

By HENRY A. PERRY

This is the first of a series of articles on "What One Man Has Done For His State", which will appear in subsequent numbers of Cloverland Magazine

ORGANIZED forces are necessary to accomplish great undertakings. Developing millions of acres of idle land, opening up a new country to settlement, is without question about the biggest, and it may truthfully be said, the most difficult of all the big problems confronting community, state and nation. Development plans then must necessarily be well laid, but after a definite policy is outlined organized efforts are required to set in motion the active forces needed to execute the plans and carry out the policy of development.

Co-operation is the key to success of these gigantic development projects, so co-operative forces composed of red-blooded men who believe in their country and its future—real men—whose habit is to put a punch into whatever they undertake to do—must be recruited for an organized detachment from the regular army of commerce and industry to carry on a specific campaign for development. The organizing of such forces requires more than ordinary executive ability, a faculty for seeking out the most active, broad-thinking men willing to make personal sacrifices to advance the interests of the community and state in which they live. Then the organization must be held intact and individual and collective activity must be made to co-ordinate so that all energy and effort is directed into proper channels and which will accomplish the best results.

With this well-balanced organization behind him, the organizer must possess that peculiar acumen to guide him into fields where settlers are most likely obtainable. He must not only know his own country and what it offers the settler, but know the needs of the settler, and be able to present to prospective settlers intelligently and accurately, the inducements and opportunities awaiting development.

The State of Minnesota has indeed been fortunate in having for its commissioner of immigration such a man in the Hon. Fred D. Sherman.



Hon. Fred D. Sherman, Commissioner of Immigration, State of Minnesota.

Mr. Sherman is all that could be required of a commissioner of immigration—he is the organizer and executive for the combined force that have done more for Minnesota within the last six years than any other one man in the state. This is a strong statement, but Mr. Sherman has done big things.

How many residents of the state have ever taken the time to study the importance of settlement, what it

greater output by manufacturers, heavier buying on the part of wholesalers and jobbers, and enlarged scope of business all round.

Assuming that Mr. Sherman obtained only 1,500 settlers in 1919, or to make it still more conservative, assume that 1,500 settlers come to Minnesota this year and next year as the result of his campaign in 1919, what does this immigration mean to the state?



No Better Grain Crops Are Grown Anywhere Than on Tilled Cut-over Land

means to each community in dollars and cents, what it means to the citizenship and social welfare of the community and state?

A superficial resume and analysis of what Mr. Sherman has done for Minnesota is sufficient to give any thoughtful person a comprehensive idea of what this great development work really means to him as a resident, as well as to the state.

From the dollars and cents viewpoint no better investment was ever made by the state and the co-operative forces that have stood by him, because the returns are bigger on the dollar invested than in any other community or state enterprise. James J. Hill figured that every new settler is worth \$2,240 to his railroad. If each settler is worth \$2,240 to a railroad, what must that settler be worth to the industrial and commercial interests of the community in which he has taken up his new home?

The newcomer is the heaviest purchaser of all commodities in his community, because he disposed of many of his belongings before moving, and must buy new. He is not "stocked up" and must buy more from year to year, turning back virtually all of his capital and annual income into commercial trade for many years to come, until his farm is developed and he has "stocked up" again. But even then he remains a steady, reliable, good-paying customer for the grocery store, the dry goods store, the implement dealer, the lumber yard, and about every other dealer in merchandise. His demand must be supplied, and to keep his demands supplied requires a

Sherman will have turned \$1,500,000 into local markets the first year, and in ten years, \$15,000,000, providing more settlers came in, and little or no progress is made in developing the raw land. But this is a ridiculous low estimate, for the reason that everybody knows that the type of settler Mr. Sherman is now obtaining is a practical farmer, with some capital and a life's experience, all of which he brings to Minnesota, and he immediately plunges into developing his new farm so that it will become highly profitable at the earliest date possible.

Then there is still another dire and immediate increase in financial returns to individuals, communities and the state. The coming of 1,500 new settlers into the state automatically increases land values. Land that was a drag on the market two years ago at \$6 and \$8 an acre, is now demanded at \$8 and \$10, and in many districts the increase in land value has been as high as \$5 an acre with the last year. But an increase of only \$1 an acre a year is a very low estimate. Assuming that there are 1,000,000 acres of idle land in North Minnesota, and making a 50-50 cut, the low estimate of \$1 an acre increase, leaving 50 cents to represent the increased land values, then Mr. Sherman has added \$5,000,000 to the land values and assessable property of the state during the last year. In ten years this nominal increase in land values at only 50 cents an acre, each year, would be \$50,000,000 at the end of the decade.

Added to the increased value and assessed valuation of idle land by the mere settlement of 1,500 families is the far greater increased value and assessed valuation given the land and the process of improvement. Clearing of stumps the land immediately jumps in value many hundred percent, and in the meantime houses, barns, outbuildings and fences are constructed, the live stock population has been increased, all adding further valuation to the state.

Assuming that these 1,500 settlers each clear ten acres of land the first year, the very minimum, Mr.

(Continued on page 40)



Mr. Sherman's "Sheep On Every Farm" Slogan Has Greatly Increased Meat and Wool Production in Minnesota, and Aided Farmers in Clearing Land for the People.

Development Section

"Of the Cloverland Magazine"

Along the northern rim of the Great Lakes Basin—across the states of Michigan, Minnesota and Wisconsin—there is a great belt of undeveloped land.

A few years ago it was considered worthless—just stump land, no longer good for lumbering, and therefore useless. Today this area is recognized as the greatest frontier America has yet offered her people.

Clover is indigenous—therefore this country has been called "Cloverland"; but every other crop, native to the north-temperate zone, and every form of live stock, has been made to thrive in this new country.

Today there are many settlers, many fine farms, many thriving towns, and wonderful cattle and sheep ranches. There is room, on some 30,000,000 acres, for thousands of additional men and women, some of whom will surely achieve unusual success, and perhaps fortunes.

The Magazine is convinced that the Cloverland country has more real opportunities for farmer, rancher and business man than any other section of the United States today. But these opportunities must be carefully and soundly handled.

On the following pages you will find articles relating to this great cut-over country, known as "Cloverland." They are written by men who already live in the country, and who know it. The Magazine does not assume responsibility for all of the views or expressions included in these articles, recognizing that sometimes as individual experiences though truthfully set forth, may not be applicable to every other similar situation. However, the Magazine accepts statements only from men of standing and responsibility and believes, therefore, that the following pages fairly reflect the conditions and probabilities of the North Country—"Cloverland."

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THE LAST AMERICAN FRONTIER

THAT belt of cut-over land, spreading across upper Michigan, upper Wisconsin, and upper Minnesota, is truly the last American frontier.

It is, however, rapidly changing its frontier aspect. Farms have been developed, great ranches are operated, towns and villages have grown with astonishing rapidity.

Those who come to this frontier will find an uninhabited waste. They will find, however, about 30,000,000 acres of unused land—land that sells from \$5.00 to about \$30.00 per acre; and that has the greatest diversity of soil; land that grows the greatest diversity of crops.

The questions most frequently asked those interested in this country are: "Where shall I go?"

"From what point shall I begin my search for land?"

"What kind of farming shall I undertake?"

"How shall I begin?"

"How much money do I need?"

In answering these questions, the well-informed northern man will say:

Where to go depends upon individual notions. The entire territory is similar in its general characteristics, whether one locates in Upper Michigan, or Upper Minnesota, makes little difference. Whether one chooses Upper Wisconsin—east or west—will in no wise alter the final results. A location anywhere in the three states is a location similar to anywhere else in the three states.

This, of course, assumes that soil conditions and neighboring agriculture studied before a particular farm is picked out.

Where to go can be answered by a map as well as from any other source. It is a question for pre-determination. One man down in Iowa, for instance, in studying the map and can decide, at once, whether he wants to

chance it in the By F. W. LUENING These organizations are devoting their time and energy to developing the country around them. Their first concern is to see that the new settler is

Upper Peninsula, in Wisconsin, or in Minnesota. Having decided, we get to the next question. From what point shall I begin my

These organizations are devoting their time and energy to developing the country around them. Their first concern is to see that the new settler is

step is a trip to Marquette, Michigan, and a visit to the office of the Upper Peninsula Development Bureau. If Upper Wisconsin has been selected, then the first step is to Green Bay, and to the offices of the Green Bay Association of Commerce, of that city. If Upper Minnesota is chosen, the first step is a visit to Duluth, and to the Duluth Commercial Club, or to Minneapolis, and to the Minneapolis Civic & Commerce Association.

Several counties are making a direct appeal for settlers in their respective county through the county boards of supervisors, the county agricultural agent, chairman of the county board, county clerk, the secretary of the county agricultural society, or an official of the county seat commercial organization, being designated as the official agent to receive prospective settlers and provide them with reliable information.

Or another alternative step is possible; each state maintains an Immigration Department. It is the business of the immigration commissioners to aid new-comers, and help make them successful. The immigration office in Michigan is located in Lansing; in Wisconsin at Madison; and in Minnesota at St. Paul. Therefore, the prospective settler may choose to visit the immigration commissioners first. He should, in no instance, fail to visit the commercial organizations. He will find them extremely anxious to be helpful and to aid him in picking the exact location. They will go over maps, and printed matter, with him. They will help him to fix upon a particular county or section that probably will best suit his needs. They also will help him to reach that county or section, and begin a careful inspection of its land. They will not attempt to sell him land; rather they will show him everything that lies in an area likely to suit him. Then, after he has

J. Ogden Armour—His Belief

TO THE EDITOR, *Cloverland Magazine*:

I BELIEVE in the agricultural and live stock possibilities of "Greater Cloverland," that rich belt comprising Northern Michigan, Northern Wisconsin and Northeastern Minnesota, with its thirty million acres of available cut-over, or former timber lands.

This belief is shared with enthusiasm by my business associates. It is reflected in the recent completion and operation of Armour & Company's new packing plant at South St. Paul, representing an investment of twelve million dollars.

My investigations in November, 1919, showed a remarkable development activity in "Greater Cloverland," both in the taking up of small farm holdings and the movement to this section of thousands of cattle and sheep from less favored ranges.

"Cloverland," the well named "Last Frontier," is a place of opportunity for the hustler, the working, modern farmer; a place of vigorous climate, rich and productive soil and all of it within a few hours by rail of the great central and northwestern markets.

Rich as have been its yields of timber and mineral, and almost exhaustless as they seem today, I hold with those who believe that the greatest wealth of this new Northwest is in its possibilities for agriculture and live stock, already developing in every county.

(Signed) J. OGDEN ARMOUR.

search for land?

There are, in the clover belt, numbers of commercial organizations made up of business men, most of whom have no direct interest in the land.

made successful. To begin a search for land, therefore, should mean, first of all, a visit to one or the other of these associations. If the Upper Peninsula has been selected, then the first



"Farms Border This Road, and Back of Them Is the Intermittent Brush Line, But the Soil Is the Same and May Be Converted Into Similar Highly Developed Farms



Clover and Timothy—nearly waist-high—on one of our Oconto County farms.

Ranchers:

To fatten your sheep and cattle, on clover, timothy, succulent grasses; on the richest soil left in the United States; are you willing to burn brush, and wait a year for your great success?

If so—pick your permanent range in the Home Lands, Inc., immense tracts in Forest and Oconto Counties, Wisconsin;

the sections too broken for farm lands—but the best grazing lands to be had anywhere.

Areas of agricultural land go with them for raising winter feed.

This is not only a range country. Winter feed can be bought from the many small farmers in this section.

You get your ranch for a small first payment—with no further payments, not even interest charges—for five years.

We will extend further credit to ranchers of merit—measuring up to the accommodation you get from your own banks.

We are not interested in investors, or in the large rancher who wants 20,000 acres. We want the permanent grazer, and will do the most for him. Our minimum is a half section ranch.

Write our Chicago office, and our Mr. Arnold L. Olson will call (his present address is at Twin Falls, Idaho). Mr. Olson, while county agent in Northern Michigan met many western sheep ranchers who settled there, and KNOWS what YOU NEED and what WE HAVE.

Send for our literature
with full information.

Home Lands, Inc.

A. L. MORDT, Gen. Mgr.

503 Manhattan Bldg. : 431 So. Dearborn St. : Chicago, Ill.

This cut shows topography of some of our grazing lands.



(Continued from page 37)

expressed a choice, they will determine the ownership, and see that he meets the owner, or his agent.

The settler is then free to make his own arrangements with the owner.

A question that is asked with great frequency is:

"What kind of farming shall I undertake?"

The North Country is adapted to diversified farming. It is particularly a dairy country—that is its ultimate future. Like all "new" countries, it offers certain preliminary opportunities—cattle grazing, and sheep husbandry on a large, more or less, primitive scale, are among them. For the average small farmer, ultimate dairy farming offers the surest opportunities. This small farmer will, however, want to begin in a small way—in fact, he should not begin with a complete dairy herd if he buys wild land. He will be unable to raise feed for such a herd on wild land. He will be unable to raise feed for such a herd on such land. He will be forced to buy feed, and will find the process costly. It is better that he should begin with a cow or two, with some poultry, with a little other live stock, but primarily with good tools.

His first step will be to clear the land. He may buy comparatively open acreage. If he does, then clearing is not a serious matter. However, wild land is wild land. It is not land into which a plow can be turned nor upon which crops can at once be planted.

larger first payment is required; but it also is true that the sooner will be able to make a paying crop from the land.

All these are matters which the prospective settler will have pretty well determined before he actually gets onto the land. The next question, therefore, will be:

"What will I find when I get into this new country?"

The settler will find a strange conglomerate. He will be surprised.

First of all, the last American frontier isn't all "frontier." If one travels through the so-called cut-over country, one passes through flourishing villages. Every now and then a train pulls into a town of good proportions. Streets are paved, ornamental lights give a metropolitan aspect to things. Show windows, in model stores, display every modern product. Well-dressed, prosperous people crowd the streets. Then, perhaps, the train moves, and stops fifteen or twenty miles further on, where a box car serves as a station, and where three frame houses constitute the "town." About them are cleared acres, where crops are growing. In the background is the brush-line. Saplings, small trees, and undergrowth, cut the brush line. The train moves again and passes through several miles of brush land. Now and then, clearing with a frame house in their center flash by. Then again the train pulls into a town of some proportions where



Sheep Will Help Clear the Land and Make Money for the Settler at the Same Time.

The new farmer, then, even should he have adequate resources, must not put his money into live stock until he has first prepared his land for that live stock.

If, on the other hand, experience has been entirely along grain farming, and if live stock is not to be part of the venture, then all attention must be turned to preparing the land. It must be cleared, plowed, planted to potatoes, or some other crop that will require cultivation, and only gradually can it be converted into fields for small grain.

As for how to begin, and how much money may be required:

The beginning has already been indicated. It is a beginning that must involve land clearing, first of all. The money required is another matter. It is variously estimated that the settler cannot be successful with less than \$300. In recent years, many have advised \$500 and even \$1,000, as the minimum amount. Of this sum, a part will be paid for the land. There are numbers of land owners who sell without requiring this first payment. Such a sale, however, simply means that the farmer has acquired a piece of wild land, and cannot, for at least a year, grow any crops upon it. Other land owners provide a small clearing, still others provide a clearing, and a house or a barn; and finally, a few provide a clearing, a house, a barn, a cow, a pig or two, a number of chickens, and some tools.

The first payment is measured largely by the amount of cleared land, and other improvements that the settler gets. The more he gets, the

carloads of logs stand on the siding and where the hum of the mills breaks the stillness.

If the prospective settler could cover the country thoroughly—by aeroplane, for instance—its conglomerate nature would be still more evident. He would come suddenly upon a wonderfully developed farm. A huge barn magnificently equipped; grown crops; registered cattle; perhaps sired by a bull worth \$25,000; and crowded close upon this would again be the brush line.

He would find acres of brush-covered territory, then suddenly a "burn" where the charred trunks of trees mingle with new-grown shrubs. The perhaps, more clearings, where groups of small farmers are making a success; and then, possibly, a strip of virgin timber, against whose edges, crowds a town. Beyond that again, he might suddenly come upon a great development project—a 10,000-acre ranch, for instance, where the brush is disappearing fast, where the sun is finding its way to the ground and where bands of sheep are grazing.

And if he could see the nature of the soil as he passed over it, he would find that as conglomerate as the rest of the country. The soil in the Great Lakes basin is largely glacial. This means that it has all the variety typical of the glacial upheaval. There are stretches of land, it is true, that are stony; there are stretches of swamp; but as a whole, silt loam clay loams, and sandy loams, predominate. There are indeed few acres in the Great Lakes basin that will not ultimately, grow some kind of crop.

There are today, millions of acres that will grow almost any crop, indigenous to the north temperature zone.

It is, of course, possible to pick the wrong land. It is possible to find a strip of unproductive sand, or a rocky hilltop that will break the plowshare and the back of any farmer. But with the vast amount of good soil available in this North Country, the man is indeed blind who will choose such a location.

As for crops—the northern states grow almost every crop known to the temperate zone. It is said that corn has not been successful. Experts find that even corn, if proper varieties are selected, will thrive in the extreme northern counties. It is, of course, true that the corn crop is not the biggest crop of the far north. There are, however, excellent substitutes for corn—sunflowers, for instance, in the form of silage; soy beans, and a lot of other things. Potatoes have proven astonishingly successful on many of the lighter soils. Clover, of course, is indigenous, and clover yields are regular and reliable. Few farm crops ordinarily grown anywhere—except, of course, in the south—fail to thrive in this new North Country. In the end, dairying will offer the surest, steadiest, and best income.

Live stock grazing will be a close second; on the hill tops, on the rougher land, the conditions are ideal for sheep and cattle. This industry requires careful preparation—the provision of some shelter, and an adequate clearing to insure feed for the winter. The northern states do not offer winter grazing. Men who attempt it are flirting with danger. In most seasons

they will be able to graze live stock from an early date in May to the early part of December. Sometimes the snow comes a little earlier, and sometimes the ground is bare until nearly the first of the year. But winter feed is a necessity, and must be faced. Then, too, live stock grazing must be a permanent matter in this last frontier. Merely "summer grazing" is not enough. It is not a one-season country. Live stock—and particularly beef cattle—must be carried through, and be winter-fed, to be really profitable. All this means permanent development and permanency in the ranching business.

With live stock succeeding, with dairying as an ultimate destiny, with men of wealth developing the highest type of dairy farm, with fruit production at high tide, and with settlers grouping themselves for community life, the last American frontier offers the surest return to the pioneer.

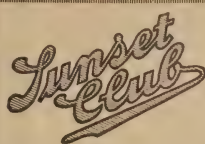
The problems are pioneer problems—no doubt about that. A year, or two, or three, will be "pioneer years." Then, however, the battle is either won or lost. Properly generated, it is won. And the last American frontier is changing its aspect so rapidly that it will be a "frontier" for a short time only. Today counts most in this frontier; today offers the real opportunities at low cost. Tomorrow will see development, bringing with it increasing prices; and day after tomorrow will place the frontier in the same category with other older farming communities—a country of fertile acres, prosperous farms, contented people; but no longer a country of unusual opportunities for men of limited means.

STOP THE DECAY OF TREES

WHENEVER the limb of a tree is blown off or becomes diseased, the stump should be sawed off even and painted with creosote or tar paint; otherwise decay will set in and spread to other parts of the tree.

Oftentimes even a nail hole will so

injure the bark that it will come off leaving the wood underneath unprotected. If these spots are left bare, decay will set in and seriously endanger the tree. A coat of creosote or tar paint will prevent spread of decay and gradually the bark will grow over the bare place again.



Truly a Quality Coffee

It is the result of twenty-two years of careful and intelligent blending by coffee experts.



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ROASTED and PACKED BY

JOANNES BROS. COMPANY

GREEN BAY, WISCONSIN



A Farm—Your Own

A farm— your own!

In a great new country; where men with less than \$300 have succeeded; where \$1,000 is CAPITAL; where a year or two of consistent work will make you independently successful.

Our Development Department can tell you about these farms and this country; can help you find a location, friends, business connections, banks.

Write for information.

Green Bay Association
of Commerce
Green Bay Wisconsin



What One Man Has Done For His State

(Continued from page 36)

year, a very low estimate, and Minnesota is richer by 15,000 more under plow and producing paying crops. And if they cleared only five acres each subsequent year, at the end of ten years Minnesota would have increased the tilled soil by 92,500 acres, giving each settler an average of 55 cleared acres. In this connection it must be remembered that the settlers Mr. Sherman is now obtaining are practical farmers, coming to Minnesota to farm and not work part time in the sawmills or at other jobs, so these land clearing figures are low, according to the best authorities on the subject. The pioneers may not have made such progress, but they were compelled to work at odd jobs much of the time to "grub stake" and put in only the summer months on the farm, while the new settlers come to the state to farm and nothing else.

Assuming that all of his cleared land brings in only \$50 an acre in crops,

the total revenue is \$4,625,000 annually, to say nothing of the live stock production and products, which can not be estimated, but in all probability will run considerably higher than the crops return.

While this development is going on there will be marked progress in all industrial and commercial lines, all brought about by the new settlers wresting the stored wealth from the soil.

The United States Department of Agriculture census for 1919 gives \$3,000 as the average production from each farm in the United States. This average includes farms of all classes and sizes in all parts of the nation. Surely, Minnesota farms must come up to the average.

The bulk of this analysis applies to Northern Minnesota, which is directly and immediately benefited by the immigration, and does not attempt to estimate the ever-increasing number of

settlers that are bound to follow those of last year, this year, next year, the year after that, and so on, until eventually all the idle land will have been converted into profitable farms.

Fred D. Sherman has started something big on a big scale, and no man can conceive the ultimate results. But here are conservative figures based upon the result of one year of campaigning for settlers, and do not take into consideration the work that has been done and is being done by settlers already on the land.

Another point of vital interest to the entire state in this great development work is the subject of taxation. So long as millions of acres of land lie idle in Northern Minnesota, so long as these millions of acres are non-productive and have only a nominal market value, just so long will the developed farms, industrial plants, city property and all other highly assessed assets bear the burden of taxation. The idle lands in the north part of the state cannot bear much higher taxation for the reason cumulative taxes will pile up the selling price to that point where it will be unprofitable to purchase and clear, and the millions of acres will again lapse back into a vast non-producing area, a burden to the state and the owners. Taxes crawl up on this idle land as its value is enhanced with nearby settlement, but there is always a point to be reached where overhead expense reaches the limit, and when that point is reached it is a debatable question whether the price fixed will not be prohibitive to the settler. Therefore, it is to the interests of every farmer, large or small, every taxpayer in the city or country, to join in this big movement Mr. Sherman has launched, and help settle up the millions of acres of idle land while it is cheap and in demand, while the low prices permit the practical farmers to retain the bulk of their capital for improvements and more quickly convert the idle land into profitable and taxable farms.

Although the settler is the goal in this gigantic development plan, there is another very important phase of the program Mr. Sherman has evolved. Through his influence and co-operation more than 44,000 sheep and 2,000 head of beef cattle were brought into Northern Minnesota last year, opening up the cut-over lands to the grazers of the western states and making a demonstration that has attracted so much attention throughout the west that ranchers already are seeking locations for their big flocks and herds in Minnesota this year. This importation of live stock in the one season represented nearly three-quarters of a million dollars on hoof, and it is only the forerunner of what is to come this year, and next year, and years thereafter, until the big ranges are established and become permanent breeding and producing ranches.

Figure all this up for yourself, go over these facts, and you will be convinced that Fred D. Sherman has done more for his state than any other one man.

Walt Sykes—Trapper

(Continued from page 31)

financial increment and to pay their own expenses during their tenure of office; the passing of a bill making it unlawful for a resident of the state to shoot wild game without first procuring a season license at the cost of one dollar per season, and for a non-resident to shoot wild game within the state without first procuring a non-resident license at the cost of ten dollars per season.

"THE proceeds from the sale of these 'gunning licenses,' an average of from \$300,000 to \$400,000 a year, is turned back from the state treasury into the hands of the Board of Game Commissioners for expenditure in purchasing game for liberation within the state limits, defraying the expenses of setting aside tracts of land limited to 1,800 acres in extent and unenclosed for game sanctuaries wherein wild game may propagate unmolested and from which it is free to spread over the surrounding territory.

"It goes also for the employment of salaried game protectors in every county of the state whose duty it is during severe weather, to trap and kill all vermin that preys on the wild game and its young, to organize and operate systems of protection from forest fires in their district, and to report and prosecute all violations of the existing game laws."

The Secretary of the Board of Game Commissioners gives this information as to the active personnel of the department:

"We at this time have sixty-four game protectors each of whom receive \$1,500 per year and necessary traveling expenses. We have twenty-four game preserve keepers receiving from \$340 to \$1,020 per year and expenses, and in addition have ten supervisory officers who are in charge of the above game protectors and game preserve keepers in the district assigned to them, each supervisory officer receiving \$1,800 per year and expenses.

"We have approximately seven hundred volunteer officers in the State known as special deputy game protectors, some of whom are employed in the fall of the year for a short time as per diem rate.

"IN some of the portions of the State that are classed as distinct game counties, the territory assigned to each supervisory officer is reduced; in addition the game protector in charge is frequently given an assistant pro-

pector for a time whenever conditions warrant such action. We at this time have eight of these assistant protectors under our employ at salaries ranging from \$90 to \$100 per month and expenses."

Twenty years ago the hunting in Pennsylvania was confined to the most undeveloped of its most northern counties in the foothills of the Allegheny Mountains, the best hunting county being Pike. Most of the best game country was controlled by private clubs and the man who hunted off of their reservations was very lucky to see the tracks of a deer or a bear or bag a half dozen ruffed grouse in a season. Wild turkey, woodcock, quail, and of course elk, were practically extinct in Pennsylvania at the time. The result of the workings of the Pennsylvania law which went into effect in 1895 is shown by glancing through the reports of the game protectors employed by the game commission, which reports the following game killed during the two fall hunting seasons between December 1, 1916 and December 30, 1917: 6,700,000 rabbits; 487,000 squirrels; 6,950 wild turkeys; 312,287 ruffed grouse; 46,822 quail; 39,320 woodcock; 3,725 deer; 608 bear; 41,107 wild duck. And with this killing going on the game continues to increase. An open season on elk is talked of next fall.

During these same two years we find in their reports that: "These game protectors and their allies have killed the state of 1,255 wild cats; 8,858 gray fox; 8,671 red fox; 10,691 mink; 33,338 weasels."

Adequate and up-to-date game legislation as instituted by these two states and in the light of their experiences would take the problem out of our game situation.

THE much-talked of closed season for deer in Michigan, for instance for a few years, would deprive sportsmen of their fall holiday without lasting benefit and simply defer the ultimate necessity of complete reorganization of the game policy. A final solution of the matter could be most logically obtained by the appointment of a commission to study the laws of other states, adapt their best features to suit local conditions, and then go before the state legislature with a program for completing such revision of game laws and game department as may be needed in any state.



For Land Clearing

Just punch a hole under the stump or boulder you want to remove and load in it two or more cartridges of



Red Cross Dynamite

Light the fuse, walk quickly away, and watch that stump or boulder shoot up out of the ground!

Red Cross will clear land with one-tenth the labor of grubbing or stump pulling. It is equally effective for ditch digging and tree planting and is economical and safe.

Put this Giant Farm Hand to work for you. If your project warrants, we will send a demonstrator to show you the easiest and cheapest way of doing your work.

See your Dealer. In any case, find out what Red Cross can do for you—and how. Write for "Handbook of Explosives" today.

E. I. du Pont de Nemours & Company, Inc.

Sales Dept. Explosives Division
WILMINGTON, DELAWARE

(Cut on this line)

Cloverland Magazine,
Circulation Department,
Menominee, Michigan.

Gentlemen:

Tell me, without obligation on my part, all about your spare time money-making plan. I have some spare time to sell for cash.

Name
P. O.
State

WE ALSO KEEP A BEE

(Continued from page 9)

and find that nature has provided an abundance of nourishment and brood resources. The brood-rearing season over there is a never-failing crop of nectar-bearing blossoms and flowers, in the fields, in the woods, along roadsides, everywhere, to keep the bees busy without overwork filling their little storehouses with honey. New flora succeeds the old, keeping up a honey flow long after the nectar-producing plants farther south have withered and died.

Wintering bees is always a problem for beekeepers, no matter where they are located, and they find the problem easier in the north country than elsewhere.

The honey flow in districts to the south is not continuous, as the long, hot summers and periods of drought cut short the full season for nectar-bearing flora. In the north one crop succeeds another and the bees are kept busy until time to cease activities and prepare for the long winter rest.

B. F. Kindig, president of the National Beekeepers' Association, spent two seasons investigating the flora and beekeeping conditions of the

north, and then gave it his approval in a contribution to Cloverland Magazine last November. This article was copied by bee journals, and the meagre reports that had filtered out to the southern and eastern honey producers were accepted as coming from an authoritative source. Commercial beekeepers also made personal investigations on their own account, and then commenced to look about for desirable locations. Owners of the busy bees in the north sat up and took notice, and laid plans for enlarged bee yards while neighbors jumped to the conclusion that "there is something in bees" and hastily purchased a colony or two for a start.

Commercial beekeepers in the south and east are becoming thoroughly aroused over the possibilities Northern Michigan, Northern Wisconsin, and Northern Minnesota offer for honey production, the few square feet reserved by northern settlers and suburban residents for bees have been elaborated into bee yards of considerable proportions, and the new industry will soon be recorded as one of the most profitable enterprises in Greater Cloverland.



These companies were the first to bring cattle to its cut-over lands, and carry on profitable and successful grazing in Cloverland.

A Remarkable Duroc Sausage

DUROC Jerseys have long been famous for their fine bacon stripped with fat and lean, wonderful hams,asty shoulders, excellent bristles and varvelous color. The merits of the neat and outside of this breed of ogs have been herisided far and wide, ut now comes a Duroc breeder exolling the "inards" of the titan haired wine as possessing greater length nd sausage capacity than any other reed.

The claim of "inside" championship minates from Ben Rider, of Findlay, hio. He declares that he butchered nice 960 pound Duroc this winter and btained 197 feet of intestines which e stuffed with ninety-seven pounds of sausage. His neighbors vouch for very foot of the sausage.

When this bit of interesting "inde" information reached the big acking houses in Chicago there was forore. Experts in stretching cags to breaking point in the inter-

ests of economy, and verterinary specialists declare that the longest string of sausage they could hope to obtain from one hog is 65 to 72 feet, or an average of less than 70 feet. Their expert opinion is that Rider's sausage is fully 100 feet too long, based on the intestinal capacity of any hog, and giving the Ohio hog the benefit of the oubt.

But what is worrying the packers is how Rider managed to discover their secret of "saving it all."

The Association of Creamery Butter Manufacturers has abolished the use of ash wood tubs for packing butter, substituting cheaper material. The change will reduce the price of butter 1 cent a pound. Five years ago ash wood tubs could be purchased for 35 cents each. Now, the price is 85 cents, and scarcity of ash is causing the price to soar even higher.

WE offer the western grazers their choice of 75,000 acres of cut-over lands in Cloverland; 25,000 in Northern Michigan; 50,000 in Florence and Forest Counties, Wisconsin.

Several ranches were selected and taken over last year by well-known western cattle and sheep men.

Write us for particulars or come and see these lands for yourselves.

Choice Cut-Over Hardwood Lands

Especially adapted to grazing and general farming, located on trunk line railways twelve hours from Chicago markets. For sale, in small or large lots, at reasonable prices, terms to suit purchasers. For particulars write

The Northwestern Cooperage & Lumber Co.

GLADSTONE, MICHIGAN

IF you want a real bargain in a nice farm home it will pay you to see the Gibson Land Company. They have what you want in size, improvements, soil, etc.

GIBSON LAND COMPANY

Over Union Nat. Bank

EAU CLAIRE, Wis.

J.W. WELLS LUMBER CO.
MENOMINEE, MICH.

GIRARD LUMBER CO.

J. W. Wells, President

DUNBAR, WIS.

MENOMINEE, MICH.

Would This Ranch Suit You?

5,000 Acres

Heavy timothy and clover range; pure water streams and lakes; camp buildings for herdsmen; barns and sheds for stock; 300 miles to Chicago market; 270 miles to St. Paul market; ranch 4 miles from railroad.

LOW PRICE EASY TERMS

PERSONAL INSPECTION URGED

THIS is a splendid opportunity for a real stockman who wants to establish a permanent range. This range consists of cut-over hardwood land, which is adapted for all field crops when cleared of stumps. The brush and slashings have been burned off and there is now a heavy growth of sun-nurtured clover and timothy, with a sprinkling of blue-grass, the kind of feed that puts on fat and shapes stock for late summer or early fall market if pastured early in the spring. All parts of the range have plenty of good, pure water in small streams and lakes.

Write at Once for Terms

This proposition will not be on the market long because our price and terms are so liberal and the range is in such excellent condition for profitable grazing that it will be snapped up by some stockman who is interested enough to visit the place and see for himself. A post-card will bring you full particulars

Address

SAWYER GOODMAN COMPANY
MARINETTE, WISCONSIN
Or
GEORGE H. HEDQUIST, Supt.,
GOODMAN LUMBER COMPANY
GOODMAN, WISCONSIN



Superior Domino 557924. Bred by Mousel Bros. of Cambridge, Neb., and Typical of Hereford excellence.

Mr. and Mrs. Hereford—Grass Converters

(Continued from page 3)

lost their usefulness for other reasons.

As stated above breeding is not all and the ultimate success of the beef cattle business largely depends on feeding. Too many men lose sight of the real object in feeding cattle. They do not seem to realize that the animal might be regarded as a machine whose function is to convert various kinds of farm products into beef and that in order to obtain the maximum profits he must keep the machine running at full capacity. They have the idea that it is too expensive to feed a calf liberally and try to raise the calf on as little food as possible. No greater mistake could be made for the result is always disappointing and they complain that there is no profit in the business. There is a great deal more money lost by under feeding than was ever lost by over feeding.

Every experienced cattle feeder knows that if a calf is allowed to become thin it takes a long while and a great deal of feed to put him into good condition again. Thus the man who does not keep his calves in "good condition from the start loses a great deal of time, wastes a great deal of feed in trying to regain the fat which was lost, and loses money when he puts the animal on the market, because it is not in first class condition. The time to start fitting an animal for sale is the day it is born, and nothing should be permitted to interfere with its quick growth and development. It takes less feed to keep a calf in good condition than it requires to regain lost ground when the calf is allowed to become thin. In addition to this, there is no market in which feed can be sold for such high prices as can be obtained by using it judiciously in developing young animals to their fullest capacity. The liberal use of feed in developing good calves is the most economical method of marketing farm products which can be devised.

The successes with which the fame of the Hereford has spread all over

the world is proof indeed of their adaptability to northern conditions. Their type, constitution, hardness, aptitude to fatten, rustling ability and early maturity make this adaptability possible. Hereford popularity has been such that it has rebounded in every direction. The breed has been tried practically in every beef producing section of the world, always with the same result—that they have never failed to make good under every condition to which they have been subjected until the whiteface is now recognized as the quality mark of beef cattle.

Since the basis of all beef cattle breeding operations is to improve the cattle which are sold for beef; and where it is observed how Hereford popularity, with every person who handles them, is based upon sound economic facts and pecuniary profits—anything other than wide expansion cannot be conceived for the future of the breed. The beef producers in the northern states would do well to profit by the experience of others, by choosing the Hereford in developing the beef industry which promises to be a big factor in the future prosperity of a promising cattle country.

Minnesota Club Work

Thirteen thousand and thirty-four members of Minnesota boys' and girls' clubs reporting to T. A. Erickson of University farm, their state leader, produced products valued at \$365,869.63 in 1919. The cost of production was \$135,512.68, leaving a net profit to the members reporting of \$230,356.95.

Every farm home that can possibly afford it should have a telephone. It helps develop neighborliness, friendship, interchange of ideas, and is the best kind of messenger in case of serious trouble.



Hereford Dam, Byleen 3rd, Junior Champion at the International; Bred by R. Hazlett, Eldorado, Kan.

SAVE SEED POTATOES

COUNTY agricultural agents of Northern Michigan, Northern Wisconsin and Northern Minnesota are warning farmers that ample stocks of potatoes should be saved for this spring, or a shortage of seed will become very acute at planting time.

The abnormally high prices that have ruled the potato market for the last several weeks have induced many farmers to sell out entirely. Root cellars have been emptied in most sections of the country with the exception of the northernmost portion of the northern tier of states. Many farmers in this north section sold their winter potato crop last fall, expecting to buy seed in the spring. During the favorable weather period last month great many northern growers who obtained their stock sold both their big stock and seed at the prevailing high prices.

The demand for potatoes late in the winter and early this spring has been world-wide. There has been a heavy export demand and huge consignments sent overseas during the winter. Domestic consumption has been heavy and with the beginning of the year prices began to soar. During the past month prices went as high, and higher in some sections, than in the spring of 1917.

Potatoes demand the highest prices in April as the storage houses are practically empty in that month, the

planting season is on in a large portion of the United States, and reserve stock, and especially seed, must be obtained from the extreme northern districts. Prices last month reached the high level of prices in April, 1917, and it is expected that all records for prices may be broken this month. It is feared that farmers having large stocks on hand may yield to the temptation to sell out and reap the benefit of these abnormal prices, and it is said by expert agriculturists that unless a big reserve is withheld for seed, the nation will face an even greater potato shortage than now exists. Prices for seed is so high now that a diminishing acreage for 1920 is a foregone conclusion, so there is no danger of an overproduction of this article of food this year.

There is every indication that prices this year will maintain a high level from the time of harvest until next spring, and for this reason the farmers in the great potato growing areas of Northern Michigan, Northern Wisconsin and Northern Minnesota are being urged by their county agents to save seed for their own use, and keep a surplus in their respective communities for farmers who sold their crops last fall, or yield to the temptation of high prices now and sell out. It is being pointed out that a few bushels of seed are worth far more if planted this spring, than if sold on the present high market.

BAA, BAA, BLACK SHEEP

(Continued from page 7)

When he went into the woods to live—his health was so poor he felt he could hardly make a living working in town. Therefore let us not worry a bit about big ranchers who were so foolish as to think that they could ship cutover sheep into the cutover areas. In forty days, prepare them for the market. Let us rather pin our faith to the proven way of developing farms—ways used these many years by the real pioneers, the men with an eye and faith and a will to work for

what they get, who have head enough to see that a flock of sheep is a valuable addition to the live stock on the farm. They have shown everyone who wants to know the way. The trail is blazed—yes, the highway is nearly ready for the one who wants to come on and follow in their footsteps.

Let's forget the "Muttonheads." Let's have the slogan: "Sheep on Every Cutover Farm, But Not Sheep Only."

LISTEN! WE ARE CALLING YOU

Marinette County, Wis., and Menominee County, Mich. At the Gateway of Cloverland
LEARN THE FACTS

YOUR CARD will bring complete Cloverland information

FARMS—All sizes, locations, and prices, with or without stock, tools and equipment.

UNDEVELOPED LANDS in any quantity for farming, stock-raising, grazing or investment.

MENOMINEE ABSTRACT AND LAND COMPANY

Box 64, MENOMINEE, MICHIGAN

20,000 Acres CUT-OVER HARDWOOD LANDS

Abundance of timothy, clover and blue grass. Well watered with spring brooks. Unequalled for cattle or sheep ranch.

Price \$7 to \$10 an Acre

Special price on first section sold. Write for further particulars and map to

E. L. STANFORD, Marquette, Mich.

A DEPENDABLE RANGE

is the goal of every stockman. With a dependable range he feels sure of success and secure against future adversity. A tract of select, cut-over land in Cloverland offers stockmen this opportunity.

Tracts to Suit Needs

We have several choice ranges among our holdings which we will sell to practical stockmen on terms that will be to his advantage.

CONSOLIDATED LUMBER CO.

MANISTIQUE, MICHIGAN

"In the Heart of Cloverland"

WE are keenly interested in the development of the agricultural and grazing opportunities of Cloverland.

What helps any part of this Empire of the North helps it all.

Calumet & Hecla Mining Company

JAMES MacNAUGHTON

Vice-president and General Manager

CALUMET MICHIGAN

Curbing the T. B. in Wisconsin

PROF. C. P. NORGORD, head of the Wisconsin department of agriculture, says that while it is perfectly proper to emphasize first the menace to human life which bovine tuberculosis offers, yet the actual money loss to farmers should not be overlooked.

Wisconsin farmers, he declared, in 1918 lost approximately \$1,780,000 worth of hogs that were infected with tuberculosis and consequently had to be all or in part destroyed for fertilizer purposes. This infection of hogs is due to the fact that hogs follow tubercular cows in the yards; also that whey and buttermilk, as well as skim milk coming from the cheese factories, is infected and transmits tuberculosis to the hogs.

The whey tank in the cheese factory is the gathering place for the germs of tuberculosis from the various herds of the patrons furnishing milk to the cheese factory. If one or two herds have tuberculosis the germs from this herd are distributed throughout the whey and thus carried to the farms of all the patrons.

Not only are the hogs infected by the whey, but also the calves which drink the whey and which form the mature herds. Records from the inspection service of the packing plants at the various stock markets of the country indicate that the hogs from every dairy state are highly infected. In several instances as much as 25 per cent of the hogs coming to a packing center are infected and show lesions.

To prevent the dissemination of tuberculosis to hogs, calves and herds from creamery and cheese factories, the legislature of 1917 passed a law requiring that all of the whey and buttermilk from creameries and cheese factories shall be pasteurized. The administration of this law was placed with the state department of agriculture. In interpreting this law the department greatly favors the pasteurization of the incoming products rather than the outgoing by-product,

as this not only protects the hogs and calves, but also people who consume primary products of factories.

The legislature of 1919 provided an alternative to the creameries whereby in place of pasteurizing, the patrons of any creamery and cheese factory district are permitted to test their cattle. In carrying out this provision all of the patrons must petition the state department of agriculture to come and test all of their cattle six months of age belonging to the patrons of the creamery.

The state will bear one-half of the expense if the total number of cattle does not exceed 150. If, however, two factories join, or the total number of cattle numbers 300 or more, the entire cost will be borne by the state. This alternative is of great interest to the creamery and cheese factory patrons of the state.

Work has already been begun by the veterinary division of the state department of agriculture in one cheese factory district in Green county, and many others desire to have the matter under consideration.

Feeders Made Money

The sheep feeders who bought late in the fall market when western sheep were arriving very thin because of the drought, made handsome profits by carrying the stuff over until after the first of the year. Many feeders who bought at \$11 and \$12 sold a few months later at \$19. This buying also helped to sustain the fall market for reaching a lower strata when the shipments were arriving from the west.

The "\$100-a-month" farm hand has arrived in Nebraska. Many contracts have been made with competent and reliable hired men at that figure.



250,000 Acres

unimproved Cut-over Lands

For Sale

in Tracts to suit
the purchasers.

Located in fourteen counties in
Cloverland — the
Upper Peninsula
of Michigan.

Prices:

\$5 to \$15 per Acre

Terms are reasonable

Write me for definite quotations, maps, etc.

J. M. LONGYEAR
MARQUETTE, MICHIGAN

Assembled Acreages in WISCONSIN

Are Now Ready for the Western Grazer or
the Corn Belt Live Stock Farmer

RANCHES OF ANY SIZE

360,000 acres of the best grassed and clover-covered cut-over lands, all watered by streams and lakes, have been assembled in Northern Wisconsin, and will be apportioned out in solid blocks to suit the stockman.

Get your location before the Spring rush is on

Write to the

Milwaukee Association of Commerce

Athletic Club Building, MILWAUKEE, WISCONSIN

Getting at the Pep in Commercial Fertilizers

(Continued from page 8)

Another interesting thing is that out 75 per cent of the potatoes used Oconto County's winning exhibit are grown with the use of commercial fertilizers.

This is not designed to lead to the conclusion that a dose of "commercial fertilizer" is all that is necessary to produce a potato crop.

Far from it. But we do believe that it is a contributing factor that pays well and coming more and more into use.

Neither do we intend to convey the idea that it should take the place of barnyard manure, for that is the foundation of all plant food. It is cheap and most effective when it can be used; but unfortunately we don't always have all we want of it, and here's where the commercial manure comes handy. It will make the barnyard manure go farther and will do the work where none of the barnyard manure can be had.

Conclusions that may be drawn are: A good application of fertilizer, with a large per cent of phosphorus, will ripen corn from ten days to two weeks earlier. An application of 500 pounds to 1,000 pounds of a fertilizer, containing a relatively large amount of potash, will greatly increase the yield and produce firm and smooth potatoes.

In our observations we have seen failures with fertilizers. They are not infallible, nor do they possess any magic which will grow oats on a quack grass straw. Usually if they fail, there is a good reason. It is not the fault of the fertilizer.

It is hardly reasonable to expect an application of a few hundred pounds of a cheap fertilizer to restore an old worn-out soil, or make any noticeable increase in the permanent productivity of a soil completely depleted of humus. They invariably show the biggest returns on land in good tilt and in a fair state of productiveness.

SEEDING CLOVER ON SNOW

THAT the old practice of seeding clover on snow has much in its favor, in spite of the fact that early spring planting with a drill is held to be the ideal method, is the opinion of Prof. J. F. Cox, head of the farm crops department at the Michigan Agricultural College.

"Seeding on snow is a pretty good practice when conditions are right," says Professor Cox. "The ground must be fairly level so that heavy washes will not carry the seed off. Too deep snow is likely to cause this same thing. The farmer who is broadcasting on snow can see where he is going—a valuable item of conservation under the present high prices. Again, the snow softens hard seeds and aids germination in this way."

"We recommend early spring planting with a drill and consider this the ideal practice. The seed should be drilled into a carefully prepared seed bed—firm and thoroughly settled—and the work should be done as early in the spring as the ground is in condition."

"Broadcasting on snow, however, is undoubtedly better than late planting in the spring or ordinary broadcasting after the snow is gone. This snow planting is an old practice and one which must still be considered. Late in the winter, toward the end of the snow, is the time for the work under this method."



Field of Potatoes in Price County, yielding 694 bushels per acre

Price County, Wisconsin

offers A Home to the Dairy Farmers, also to the Potato Grower, the Live Stock Man, and to the General or Specialized Farmer.

Write for a soil map, booklet or other information to the COUNTY AGRICULTURAL AGENT, Phillips, Wisconsin

"SHEEP MANAGEMENT"

By Prof. Frank Kleinheinz

The Noted Sheep Judge and Expert of the Wisconsin College of Agriculture, Madison

PROF. Kleinheinz has had thirty years practical experience in handling breeding, feeding and judging sheep. He has judged sheep at the International Live Stock exposition at Chicago, many state fairs and numerous county and district exhibitions. For thirty years he has had charge of the sheep division of the Animal Husbandry Department of Wisconsin Agricultural



College. He is one of the best recognized authorities on sheep in the United States and enjoys a splendid reputation abroad.

THIS splendid book of 320 pages, illustrated with 100 fine plates on—

Sheep Management Breeds and Judging Price \$1.60

This is a book any farmer now raising sheep, or any farmer contemplating sheep raising SHOULD have.

ADDRESS:

CLOVERLAND MAGAZINE
MENOMINEE MICHIGAN

Excellent Farming and Grazing

LANDS

For Sale in Alger, Marquette, Luce and Chippewa Counties, Michigan

Cut-over Hardwood Lands. Good Soil. Fine Water. Accessible by Railroads and Good Highways. Near Settled Communities.

Prices \$7.50 per acre and up ————— Easy Terms

THE CLEVELAND-CLIFFS IRON COMPANY
Land Department NEGAUNEE, MICH.

The Keweenaw Land Association Ltd.

— OFFERS —

Cutover Lands

in Chippewa, Dickinson,
Iron, Gogebic, Ontonagon
and Houghton Counties
in the Upper Peninsula of
Michigan in tracts to suit

Clay loam, sandy clay loam, sand loam and sand
soils at \$5.00 to \$15.00 per acre.
Generally well watered.

J.M. LONGYEAR, Agent, Marquette, Mich.
D. S. DEAN, Treas., 87 Milk St., Boston, Mass.

235,000 Acres of Cut-Over Lands

We own and offer on exceptionally favorable and easy terms 150,000 acres in Delta, Schoolcraft and Alger Counties, Cloverland, Michigan.

Also 85,000 acres in the clover districts of Northern Wisconsin. Tracts of all sizes. Terms to suit.

Bay de Noquet Co.

George J. Farnsworth, President

NAHMA, MICH.

Oconto Lumber Co.

George J. Farnsworth, President

OCONTO, WIS.

Chicago Offices: Railway Exchange Building, Chicago.

ACCREDITED HERDS

WITH seventy-one herds of Wisconsin cattle, totaling 1,790 head, that have been accredited during January or have passed the first negative test for tuberculosis, the tuberculosis drive in the state continues to make substantial progress, according to Dr. J. S. Healy who is co-operating with the state live stock authorities in the direction of the work in Wisconsin.

"Ridding the state of tuberculosis sounds like an Utopian dream," says Mr. Healy, "but it is not without its possibilities. It has practically been accomplished in smaller areas, and with sufficient funds available and the proper educational propaganda together with the necessary legislative measures why not hope to make a circumscribed area eventually embrace statewide proportions?"

"Why an accredited herd?"

"On account of the prevalence of tuberculosis in the herds of the country. We can point to herds completely exterminated on account of this

disease. Hardly a month passes that we do not experience one or more cases of this kind.

"The accredited plan gives the breeder credit for his efforts in eradicating tuberculosis and gives him the most favorable publicity obtainable. It is not without its educational value in creating a sentiment in favor of general eradication plan."

Twenty-eight Holstein, 27 Guernsey, 8 Jersey, 5 Shorthorn, 2 Ayrshire and 1 Brown Swiss were among the herds that were tested during January. Waupaca county leads with 14 herds, La Crosse had 7, Langlade, Saint Croix, Pepin, Chippewa, Winnebago, Sheboygan, Marathon and Rock each, Outagamie 3, Jefferson, Juneau, Dane, Richland 2, and one each in Sauk, Eau Claire, Wood, Fond du Lac, Winnebago, Green, Dunn, Pierce and Trempealeau counties.

During December 1,917 head were tested and an even larger number in November.

Dogs Slaughtering Sheep

The Wisconsin department of agriculture is now calling attention to the enormous destruction of sheep in that state by dogs, preliminary to the enforcement of the new dog law passed by the legislature of 1919.

Mr. Norgord, head of the department, in a recent address told of a flock of sheep near Portage which was attacked one night by two dogs whose owners would have sworn they would never touch a sheep. Yet in that one night seventy-two sheep were either killed outright by the two dogs or so mutilated that they had to be killed. Mr. Norgord saw the flock the morning after. One sheep had the skin torn from its flank and a large part of the ham was eaten off. Yet the sheep was

still alive. Another had one hind leg torn off. Another had its entire abdomen flayed. Some had their ears a part of their faces eaten off, and one was so torn that its intestines protruded and dragged on the ground as it walked.

In view of this and many similar disasters, Mr. Norgord feels that the new dog law is not too drastic. Every tax assessor must list the dogs in his district, and he gets for his service 20 cents for each dog listed, this compensation to come from the dog license fund.

Wisconsin has set the pace with "model dog law," which other states are expected to follow.

DOCK COAL

CENTRAL WEST COAL CO.

MENOMINEE, MICHIGAN

Cloverland — Improved Farms Grazing Lands

QUALITY

PRICE

SERVICE

Write me
at MENOMINEE, MICHIGAN



Improved LANDS Cut-over VAN ORDEN BROS.

Houghton

"Cloverland"

Michigan



LENETTA LEADS

SHE'S a grand wee Coo" and all dairymen, irrespective of breed, pay their homage to Lenetta, the twenty-one year old Ayrshire who has just completed an Advanced Registry record amounting to 11,138 pounds milk, 473 pounds fat. In the face of present day world records 11,138 pounds milk, 374.73 pounds fat would be considered just an ordinary production, it nevertheless it is a world record for all breeds, for no cow of any breed has ever equaled that record officially at the age of twenty-one years. Lenetta illustrates Ayrshire persistency and the breed's ability to produce and reproduce. She was born August 18, 1898, and was bred by A. A. Hunneill of New Gloucester, Me., and is

owned and was tested by Dr. John A. Ness of Auburn, Me. As a fourteen year old she officially tested 13,428 pounds milk, 465.74 pounds fat. She now has five A. R. records to her credit averaging 11,472 pounds milk, 397.36 pounds fat, all of the five records being made after fourteen years of age. She has been a uniform producer, her average of 11,472 pounds milk comparing well with last year's record of 11,450 pounds milk and this year's record of 11,138 pounds. Lenetta is a strong, vigorous cow in spite of her years and looks capable of continuing the good work for quite a few years yet. She has been a regular breeder.

Cows of this type are the backbone of the dairy industry.

PURE-BRED CALVES PRIZES

SIXTEEN members of the Winnebago County (Wis.) Holstein Breeders' Association have each agreed to donate a pure-bred heifer calf to the boys' and girls' calf club movement in that county. Clubs are now being organized through the country schools, and a calf will go to the school in each township which has the largest number of entries of pure-bred Holsteins, according to G. A. Sell, county agent. In each town the prize calf will be offered at public auction, and sales will be in most cases a semi-social event celebrating the close of the contest. The returns from the sales,

which will aggregate well over \$2,000, will be at the disposal of the pupils of the winning schools under the direction only of the teachers and the county superintendent of schools.

These contests will be open to Jersey and Guernseys as well as Holsteins. These various activities are planned in the hope that the number of calf club members will be much greater this year than last year. Last year there were 100 boys and girls enrolled and the more optimistic believe that the number will be nearly 300 this year.

Marketing Wool

The 142 members of the Jasper County, Iowa, Wool Growers' Association learned considerable about marketing their wool last year. When their association was organized dealers offered 42 cents a pound for the wool. When the association was ready to ship the price offered was 52 to 56 cents, although there had been no increase in the price of wool on the mar-

Well, Everybody Knows

A Virginia backwoods farmer posted the following notice on a tree to warn hickory-nut gatherers off his place:

"Tresposers will be persecuted to the full extent of 2 mean mongrel dawgs which aint never been overly soshibul with strangers and 1 dubbel barrelt shotgun which aint loaded with no sofy pillers. Dam if I aint tired of this hel raisin on my propperty."

R. W. D.

WHAT THE

I. Stephenson Company Trustees

WELLS, MICHIGAN

Offer to Homeseekers on the Sunny Side of
Cleveland, the Upper Peninsula of Michigan

—Choice of 400,000 acres of land at prices ranging from \$20 to \$30 an acre for cut-over land.

—A climate the same as upper New York, northern South Dakota and central Minnesota—this district is 600 miles south of the much advertised wheat belt of Canada.

—A variety of soils fit for all crops grown in the north temperate zone.

—Good roads, good schools, good water and climate.

—Home markets that now are forced to depend on outside communities for much of their food.

—Railroad service that brings 10,000,000 people within a night's ride for farm products, and the equal of that afforded the farmers of Indiana, Illinois and Iowa.

—An unsurpassed fruit country, protected by 1,000 miles of shore line along Lakes Michigan and Superior—a practical insurance against frost damage. A choice of five lines of farming.

Fruit, Dairying and Live Stock,
Truck Gardening, Grains,
Root Crops

Oneida County Wisconsin

*Where 25,000 western sheep
were pastured last season*

**Some of these Stockmen
Wintered Here**

**Range for thousands more. Abundance
of good water, grass and clover. Plan to
graze in Oneida County, Wisconsin, in 1920,
and then pick out your permanent ranch.**

ADDRESS

**County Board of Supervisors
RHINELANDER, ONEIDA COUNTY, WIS.**

Upper Peninsula Cut-Over Lands

Suitable for Grazing or General Agricultural Purposes

FOR SALE

in Alger, Chippewa, Gogebic, Luce,
Mackinac and Schoolcraft Counties

THE Northern Peninsula of
Michigan is the best Live-
stock and Dairy country in
the United States, if not in the
world. It can care for 8,000,000
sheep and 1,000,000 head of cattle.

For information write

**LAND DEPARTMENT, Charcoal Iron Company of America
MARQUETTE, MICHIGAN**

Cloverland Bargains

RATE: Seven Cents a Word

Copy for the Cloverland Bargains column must be in the office not later than the fifteenth of month preceding publication. Address all want ads to the CLOVERLAND MAGAZINE, Cloverland Bargains Dept., Menominee, Michigan

A FINE FARM FOR SALE—280 Acres, one mile west of Carnay, Michigan, which has good schools and a creamery. 150 Acres of this land is cleared; has a good house and hay barn and small orchard, plenty of running water all the year. Uncleared land is well seeded to grass; the soil is clay loam. There is not an acre of poor land in the farm. Easy terms. Address Box 53, e Cloverland Magazine.

FOR SALE—120 Acres, good loam soil with clay sub-soil; 3 miles from town, 1/2 mile from school, on macadamized road, 75 acres under cultivation, balance pasture with spring stream; good 2-story 10-room house; barn 35x85; hay barn; tool shed; garage; chicken coop; 100 trees; smoke house; 2 wells; 100-tree apple orchard. Personal property included, wagons, mower, rake, binder, disk harrow, cultivators, plows, harrows, drill, fanning mill, etc. I am offering this farm with personal property complete for \$25,000.00, \$7,000.00 down, balance in 5 years to suit. Write P. L. Kaiser, Menominee, Mich.

HAY—Write or wire us whenever in need of Clover or Timothy Hay, also Straw, in carload lots. Dafter Hay & Grain Co., Dafter, Michigan.

CAN HANDLE several 60 to 100 acre farms if highly improved and well located. Also some partly improved. Walter Miller, 320 Brumder Bldg., Milwaukee.

FOR SALE—400 Feeding pigs, eight weeks old, at \$9 each, delivered. Booking orders now for May delivery. Ernest Dutcher, Whitewater, Wis.

AGENTS WANTED—If you are making less than \$200 a month, write us today. We have a "get rich quick" plan, but if you are wide awake, honest and willing to work with us and give us at least part of your time, we can offer you an opportunity to make from \$30 to \$50 a week. Just drop us a postal card for complete particulars, free. Box 123, Cloverland Magazine.

FOR SALE—One fine 3,200 lb. team, geldings, 6 and 7 years old; gentle, experienced farm team; includes heavy farm harness in A-1 condition; price \$450. One grade cow, half Jersey, half Guernsey, 5 years old, gentle as a lamb, milk 14 quarts when fresh, freshens in July; price \$150. One 1918 Ford touring car, excellent mechanical condition, tires new, price \$450. One western saddle pony, rein broken, speedy, full of life, gentle; includes fine western saddle, price \$60. Ten tons A-1 clover hay; 25 tons clover and timothy mixed; baled; at market price. Address, W. B. Wallace, Lakewood, Wis.

GET OFFICIAL INFORMATION regarding soils, climate and crops of Price County, Wisconsin, from the Representative of the College of Agriculture and the U. S. Department of Agriculture, in mind, partly improved and undeveloped land \$10 to \$100 per acre in Price County. Most rapidly developing live stock, dairy and general farm country in the clover belt of Wisconsin. Write H. J. Rahmlov, County Agricultural Agent, Phillips, Wis.

FOR SALE—250,000 acres of unimproved cut-over lands in tracts to suit purchaser. Prices \$5 to \$15 an acre, terms reasonable. Address J. M. Longyear, Marquette, Mich.

FOR SALE—We own grazing lands in the great open area of Cloverland, where natural grass settings are found. We can offer you any size tract desirable. Write for full particulars. Baldwin Corporation, Appleton, Wis.

FOR SALE—We own 150,000 acres of cut-over lands in Dickinson, Barraga, Keweenaw, Iron and Gogebic counties in the Upper Peninsula of Michigan; 20,000 acres in Forest and Florence counties, Wisconsin. Any size tract on easy terms. J. W. Wells Lumber Co., Menominee, Mich.

FOR SALE—We have tracts of cut-over lands of all sizes for practical stockmen who want to succeed in a permanent manner. Consolidated Lumber Co., Marquette, Mich.

FOR SALE—Choice cut-over hardwood lands, especially adapted to grazing and general farming. Small or large tracts at reasonable prices, terms to suit purchaser. Northwestern Lumber & Lumber Co., Gladstone, Mich.

FOR SALE—Upper Peninsula cut-over lands suitable for raising or general farming in Alger, Chippewa, Gogebic, Luce, Mackinac and Schoolcraft counties. For information write, Lantz Department, Charcoal Iron Company of America, Marquette, Michigan.

WE BUY USED BAGS; pay fr. on 200 or more. Lincoln Bag Co., Dept. 16, Springfield, Illinois.

FOR SALE—\$2,400. 160 Acres, 40 acres fall plowed, log house, log barn, well and wire fenced, four miles from railroad, one mile to school. \$300 down, balance contract \$100 per year. Times in grain and land to pay for same. Address, E. C. Vall, Alvin, Wis.

HIGH GRADE Holstein or Guernsey calves, either sex, 6 to 8 weeks old, \$30 each, delivered. Ernest Dutcher, Whitewater, Wis.

FOR SALE—347-Acre farm located in North Central Wisconsin now being operated as sheep ranch and general farming—have 400 sheep now, 120 tons good hay—necessary implements—horses, etc.—good soil for 1/2 grain and hay—raised 200 bushels potatoes per acre this year—fenced and cross-fenced complete with woven wire, excepting 40 acres—new sheep sheds—other buildings in fair condition—approximately 50 acres under plow, 100 acres brushed and in pasture balance light growth of brush with excellent pasture—land is capable of pasturing 800-1000 sheep—Large sheep raisers near by. Due to inability to live on farm will sell farm, live stock, hay, grain and implements as a whole or in part. Write for details. F. A. B., care Cloverland Magazine.

FARMS FOR SALE—144 Marathon County Farms we offer at a reasonable price. Write for list. Fresh Land Co., Office over 5c and 10c Store, Wausau, Wis.

FOR SALE—\$50,000.00 property in heart of booming city. Will take \$25,000.00 cash, balance cut-over land in Wisconsin. Fred Wegener, West Bend, Wis.

FOR SALE—80 Acres in Menominee County, Cloverland; A-1 clay loam soil, 2 miles from town, on main line of C. & N. W. R. R.; 60 acres under cultivation; 2 pasture with running water; good 2-story 6-room house, hardwood floors and stone basement; barn 40x60, small orchard. Excellent farm, good neighborhood with all conveniences, schools, churches, bank, macadam roads, etc. Price \$6,000.00, \$3,000.00 cash, balance terms at 6%. H. M. Wright, Menominee, Mich.

FOR SALE—Any part of 100,000 acres stock lands or farms in Michigan or Wisconsin. Write for books and prices. Menominee Abstract & Land Company, Menominee, Mich.

"THE RIVIERA"—Grace! Beauty! Wonderful clear tone! Acoustic, mechanical perfection! The only 45" cabinet phonograph sold at \$60 up. Completely equipped, unlimited service guarantee shipped on approval. Patented outing houses, knockdowns, motors, supplies. Record up. Catalog 10 stamps. Riviera Co., Milwaukee.

FOR SALE—2,000 Acres land in one block. Excellent soil. Well located. Price and terms attractive. Write Fred A. Roper, Menominee, Michigan.

NEED CASH—Sacrifice beautiful \$150 phonograph and 6 records, electric light, needle-pointing, etc., guaranteed like new. On approval, \$80 cash. 593 Bartlett A. Milwaukee.

IDEAL SHEEP LAND—Fertile soils that grow corn, wheat, oats, barley peas, vetch, clover, alfalfa, fruit and vegetables, in 1,000, 2,000 and 3,000 acre tracts, and smaller if desired. \$10 to \$15 per acre, easy payments, interest 6%. Easily cleared, well grassed and watered by small lakes and streams. Located in the heart of Lower Michigan's clover seed belt. No cash payments required if responsible purchaser will grow annually 4 per cent of acreage to clover and apply proceeds from seed yield upon payment of land until paid for. Clover seed one year after either in Presque Isle County nets growers \$100 an acre. John G. Krauth, Millersburg, Mich.

FOR SALE—Pure bred Guernsey bull, 2 1/2 years old; Sire, Masher Rockingham; dam, Carillon Chosan. Price, \$200, will exchange for breeding ewes. Address Herbert Burrows, Emmet P. O., Lake County, Minn.

FOR SALE—Several sections of best cut-over land, near railroad, on good roads close to Superior, \$20 per acre, easy terms. Also have a few good improved farms for sale. For information, write John W. Lake, Poplar, Wis.

FLORENCE COUNTY, WISCONSIN LANDS

for sheep and cattle ranches, in tracts of 320 acres up to 5,000 acres. For full particulars, write

PETER McGOVERN LAND CO., Florence, Wis.

WHO IS HE?

By ROBERT AMUNDSON

He supplies everybody with all the necessities of life.

He has given the nation billions of dollars in wealth.

He sells billions of dollars worth of goods each year and buys 65 per cent of all the goods sold.

If he has a prosperous year, the laborer buys a new overcoat, the manufacturer a better car and the poet a Christmas dinner.

If the season is disastrous, bad luck and hard times are guests at every household.

Put him on an island alone and he will live—well clothed, well fed, and comfortable.

He works from sun till sun.

He studies at night and learns all day.

He does more business in co-operation with his fellow workers than a other people combined.

He has the greatest professional school in the world—whose campus reaches from the Atlantic to the Pacific.

He is the only business man who never graduates from his college.

He is the foundation of all business.

He is the Gibraltar of all industry.

He is the stabilizer of Politics.

He is the butt of vaudeville jest.

Who is he?

He is the Great American Farmer.

Statement of the Ownership, Management, Circulation, Etc., required by the Act of Congress of Aug. 24, 1912

of the CLOVERLAND MAGAZINE

Published Monthly at Menominee, Michigan

For APRIL, 1920

STATE OF MICHIGAN, ss.

I, the undersigned, a Notary Public in and for the State and county aforesaid, personally appeared R. M. Andrews, who, having been duly sworn according to law, deposes and says that he is the publisher of the Cloverland Magazine, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, R. M. Andrews, Menominee, Michigan.

Managing Editor, Henry A. Perry, Menominee, Michigan.

Business Manager, P. C. Munroe, Menominee, Michigan.

2. That the owners are Herald-Reader Company.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders or security holders as they appear upon the books of the company but also, in case where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of bona fide owner; and this affiant has reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities, as so stated by him.

R. M. ANDREWS, Publisher.

Sworn to and subscribed before me this 25th day of March, 1920.

ALBERT CARL SEIDL,

(My commission expires Sept. 21, 1922.)

VON PLATEN LUMBER COMPANY

MANUFACTURERS OF

NORTHERN HARDWOOD

IRON MOUNTAIN, MICH.

Peter White Land Company, Limited
MARQUETTE, MICHIGAN

Farm and Timber Lands

Cut-over clover lands in Sawyer, Bayfield, Rusk and Price Counties, Wisconsin, for sale in large or small tracts. Reasonable prices.

AMERICAN IMMIGRATION COMPANY,
Chippewa Falls, Wisconsin



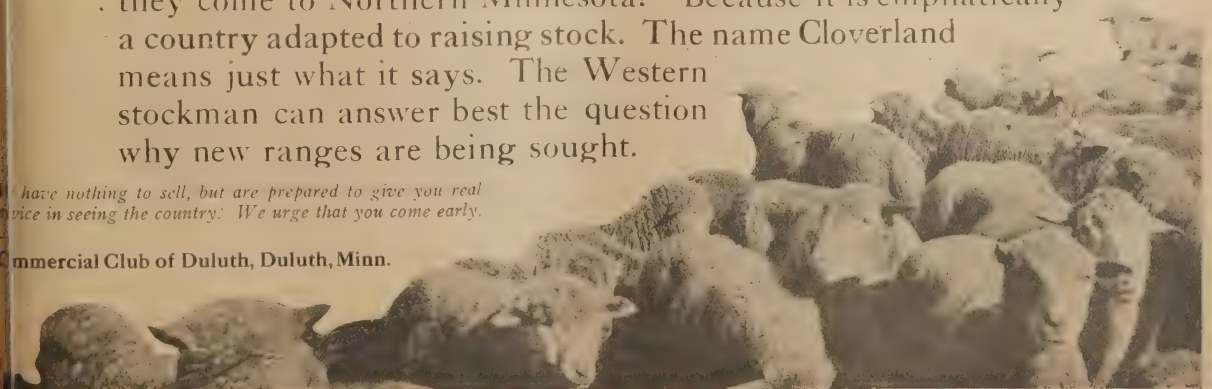
George Left Yesterday for Northern Minnesota"

—Citizen of Wyoming

THE 1920 immigration of Western sheep ranchers into Northern Minnesota has started. Yesterday, (April 3d), two Wyoming ranchers arrived at Duluth to look over the grazing lands and the herds that wintered over in Greater Cloverland. They are but the advance guard of the army of cattle and sheep men who will visit these lands during the coming months. But why do they come to Northern Minnesota? Because it is emphatically a country adapted to raising stock. The name Cloverland means just what it says. The Western stockman can answer best the question why new ranges are being sought.

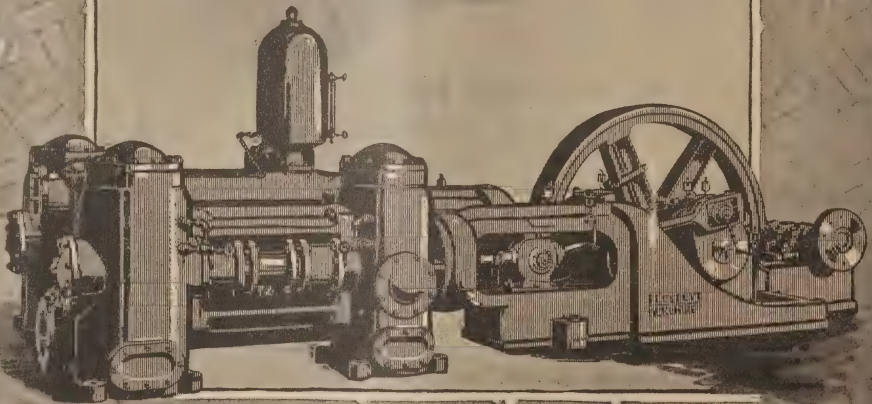
have nothing to sell, but are prepared to give you real
vice in seeing the country. We urge that you come early.

Commercial Club of Duluth, Duluth, Minn.



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MINE PUMPS



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The RED TOP Guarantee

WE guarantee RED TOP Steel Posts will not break, burn, rot or frost-heave in the fence line; that they are free from defects in material and workmanship; that they will outlast the heaviest fencing manufactured.

We guarantee RED TOP Posts to be just as represented in our literature and advertising.

Any RED TOP Post which does not fulfill the above guarantee will be replaced by your dealer—without cost or argument.

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Chicago Steel Post Co.

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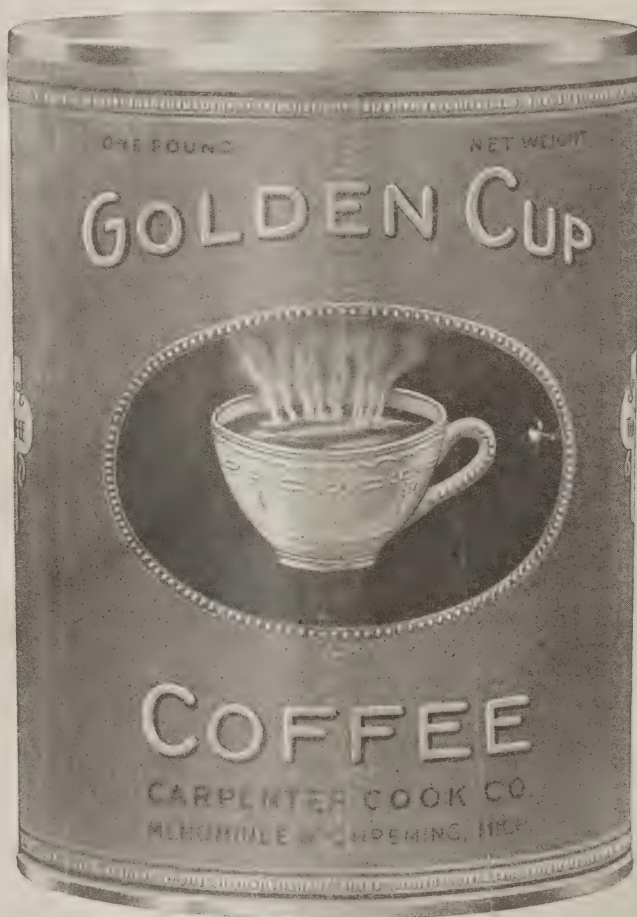
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in Cloverland*



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MENOMINEE and ISHPERING, MICHIGAN

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Menominee, Michigan

COVERLAND

MAGAZINE

MAY, 1920

Ten Cents The Copy

The Dominant Agricultural Journal of the Northern States



Registered Holsteins on Northern Cut-Over Pasture That Was Never Touched With Plow or Harrow

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COMPANY

Menominee, Michigan

—the Answer
to why Northern
Minnesota is
fundamentally
a country par-
ticularly adapted
to Stock Raising
can be summed
up in three words
Dependable Rainfall
Clover

I suggest that
you visit these
lands this year.
At your service
Fred D. Sherman

COMMISSIONER OF IMMIGRATION
ST. PAUL ... MINNESOTA



Why live stock prices fluctuate

—and why no one can control them

Swift & Company dislikes sudden and violent fluctuations in live stock prices as much as you who raise the live stock.

Steady prices that can be figured on a long way ahead and plans made accordingly are just as important to the packer as to the producer or any other business man.

Swift & Company alone cannot keep prices steady. Neither could all the packers in the country, as a body.

Prices on live stock are determined by the law of supply and demand, which no man can go against. Packers create neither the supply nor the demand. *They merely form the link that joins them up.*

When the demand for meat is heavy among those who eat it, the packers must scramble for the raw material among those who produce it. This sends prices up.

When stock raisers see prices going up, they begin to scramble to get their animals in at top prices. This starts a heavy movement toward the packing centers. Markets soon are flooded. Supply outruns demand, and prices fall.

Then shippers hold off. Receipts recede. Another dearth sets in. The balance swings the other way; demand exceeds supply again, and the process is repeated.

The packer cannot control either of these movements. He can only follow them, and give both producer and consumer the best prices the market affords.

Last year, out of every dollar Swift & Company took in for all meat and by-products, 85.4 cents was paid out for live stock; 13 cents went for labor, freight, and other expenses. Swift & Company got 1.6 cents as profit for its more than 30,000 shareholders.

Swift & Company, U. S. A.

Founded 1868

A nation-wide organization owned by more than 30,000 shareholders



Cloverland:

400,000 Acres of Land Under Cultivation.

14,000 Farmers, and room for thousands More.

8,000,000 Acres Available for Farming or Grazing.

Soils Particularly Adapted to All Root and Grain Crops.

Average Growing Season of 149 Days.

Average Rainfall is 29.1 Inches.

Home Market Consumes All Region Can Produce, Except Hay, Celery, Peas and Potatoes.

2,000,000 Acres of Heavy Clay Land Where Hay Will Grow Year After Year, Two Tons to the Acre.

Schools and Churches Abundant.

800 Miles Touring-Marketing Highways.

OWN A FARM in CLOVERLAND.

The Upper Peninsula of Michigan

WHY battle with money-mad title holders when you can pick an improved farm in the most productive region in the country—CLOVERLAND?

Not long ago this Cloverland country was hit by the general exodus of farm labor to the factories. As a result over 200 excellent properties were left idle. But, one by one, they're coming back to the hoe and spade. The "Gay White Way" and the "Fabulous Fortune" has lost its lustre, and Upper Michigan is experiencing the greatest back-to-the-land movement in its history.



IF YOU WANT to get in on some remarkable propositions in partially developed farms DO IT NOW, before the best of these properties are picked off. The demand is steadily increasing, and there is every indication that CLOVERLAND will have more acres under the plow this season than ever before. Get your bid in early, and you will be surprised at what a good proposition a little money can bring you.

Cloverland: Within thirty-six hour "haul" from four great markets—St. Paul, Chicago, Detroit and East Buffalo.

Cloverland: 2,500 Miles of railroad. Transportation possible by railroad, highway or water-way. In the Heart of the Great Lakes Region.

Cloverland: One of the SIX National Touring Objectives. Over 12,000 automobile visitors during season of 1919.



General Motors Trucks

A PRODUCT OF
THE GENERAL MOTORS CORPORATION
Built in All Sizes from $\frac{3}{4}$ -1 Ton to 5 Ton Capacity



At Racine, Wisconsin

Four $\frac{3}{4}$ -1 ton GMC trucks in the service of Armour and Company.

This big concern has purchased more than 150 GMC trucks in the last three years.

Their big investment in GMC's is backed by the largest industrial corporation in the world.

At Marquette, Mich.

This 5-ton GMC dump truck has been in service of the City of Marquette for several years.

It is also provided with a 1,200 gallon water tank that is interchangeable with the dump body.

Thus the one chassis fills the need for a dump truck and a street sprinkler.



These Cloverland Dealers will be glad to tell you about GMC Motor Trucks

Union Auto Co., Eau Claire, Wis.
Elsen & Phillips, La Crosse, Wis.
Service Sales Co., Green Bay, Wis.
A. G. Jennings Motor Sales, New London, Wis.
Highway Service Garage, Marathon, Wis.
J. T. McCann Co., Appleton, Wis.
Cloverland Garage & Machine Works, Manitowish, Mich.

Merrill-Buick Co., Merrill, Wis.
A. C. Homan Auto Co., Menasha, Wis.
Hathaway-Buick Co., Oshkosh, Wis.
Munising Motor Co., Munising, Mich.
V. L. Lipsett, Pickford, Mich.
Austin Lipsett, Sault Ste. Marie, Mich.
Larson & Asplund, Ashland, Wis.

J. A. Rummele Auto Co., Manitowoc, Wis.
Raab Motor Co., Sheboygan, Wis.
Johnson Motor Co., Fond du Lac, Wis.
Auto Supply Co., Plymouth, Wis.
Farm Power & Equipment Co., Lancaster, Wis.
Graham & Pecard, Bessemer, Mich.
W. F. Beilke, Wausau, Wis.
Bingham Motors Co., Janesville, Wis.

OR WRITE TO

GENERAL MOTORS TRUCK COMPANY OF WISCONSIN : *Milwaukee, Wis.*

DISTRIBUTORS FOR WISCONSIN AND UPPER MICHIGAN

The Holstein-Friesian Cow—Grass to Cash

By F. L. HOUGHTON
Secretary Holstein-Friesian Association of America

THE function of the art or the craft of animal breeding employed to produce our supply of domestic animals, is the basic element of agriculture. Animal breeding makes use of the fundamental attribute of self-reproduction, controlling and directing in an intelligent manner, the reproduction of qualities which are of most value to mankind. The breeder of sheep endeavors to bring about the reproduction of animals that shall be able to produce the most wool—the beef cattle breeder seeks to produce animals which can and will carry on their frames the largest amount of edible beef, and the dairy cattle breeder tries to direct and control the reproduction of animals which shall be able to produce cows which yield the largest amount of milk. The more complete the control and the more intelligently it is directed, the greater is the breeder's success. The needs and fancies of man in various parts of the world have led to the production and propagation of diverse breeds of domestic animals to meet the particular conditions prevailing there. A study of the development of special breeds and sub breeds in various countries is of absorbing interest, but the limitations of space forbid extended reference here. Some idea of the extent to which differentiation and specialization of animals for particular ends has been carried in the British Isles, may be gained from a consideration of the following facts taken from a statement published by the London Board of Agriculture: There are seventeen distinct British breeds and varieties of horses, thirteen of beef cattle, seven of dairy cattle, thirty-four of sheep and eight of swine. According to well authenticated figures, there are over 200,000,000 living domestic animals of various kinds on the farms of the United States. It is safe to say that each one of these 200,000,000 animals was produced as the result of a more or less intelligent and definite breeding operation. Since the earliest time, the constant aim of the breeder has been to produce differentiated types, which were adapted to the demands of his particular locality, and having once found or developed a satisfactory type he tried to keep it. In the early days of animal breeding, the production of animals of the same type and belonging

to a few family lines, could be safely left to the individual breeder, but with the wider development of the industry this is not possible. Today the live stock breeding industry rests upon a foundation of purebred pedigreed stock, and it is necessary to have official registration which will prevent beyond all chance, any manipulation by a breeder. Registration provides to the owner of an animal definite and objective evidence that the individual is of the breed indicated.

Out of this necessity for systematic registration and records of official status and supervision, have grown the Herd-Books and the Stud-Books, as established and maintained by the many Breeders' Associations. There is no doubt, that the pecuniary rewards of intelligent and progressive breeding of dairy cattle are generous, but it must be admitted that the general average quality of animals on farms of the United States is low, due to the neglect by the great

majority of farmers, of the obvious general principles regarding the improvement or grading up of their stock. The true art or craft of dairy cattle breeding is progressive in that it seeks to obtain an ideal, and it is conservative in that it seeks to "hold fast to that which is good"—the type which the animal of a particular breed should be. The necessary cost of breeding and raising a purebred animal is no more than that involved in raising a grade or a scrub, and it is obviously a sound business principle to breed and keep only purebred registered stock. Most farmers today keep cows merely for immediate production, and make no attempt to realize additional profits by grading up, or by testing each cow as to productiveness and relative cost, and eventually eliminating from the herd the non-profitable milk producers. Purebreds are not only more profitable than non-purebreds, but there is no comparison between them as regards the extent and regularity with which they transmit good qualities to their offspring, and furthermore the breeder of purebreds is not dependent alone upon the productive qualities, for the offspring constitute a valuable and standard commodity. The breeder of purebred registered cattle is further strengthened in his economic position because he is identified with at least one of the large and powerful live stock associations of the country. Some idea of the magnitude of purebred live stock interests in the United States may be gained from the statement that there are eleven cattle associations with a combined membership of over 60,000. Of the dairy cattle breeders' associations, the Holstein-Friesian Association of America has a membership of 18,000, and it is constantly growing. The foregoing expressions have been made with the thought that they may bring to the reader a more keen realization of the fact that the progressive breeding of purebred animals is one of the great constructive forces of our economic life, and that the individual breeder is a highly important and commendable factor in the advancement of the national welfare. So much has been said and so much can be said in reference to progressive breeding that an attempt here to go into details of its scientific application would be out of place.



A Sire That Has Helped Make Wisconsin Famous as a Dairy State



Registered Holsteins on Cut-Over Land Pasture at the U. P. Experiment Station, Michigan College of Agriculture

CLOVERLAND MAGAZINE



This Houghton County Club Canned 700 Quarts of Products—107 Varieties

JOE, who was a member of a potato club during the summer of 1919, attended his home county fair for the first time in the fall of that year. He saw many things of interest among the different exhibits, but the greatest drawing card was the exhibit of his own potatoes among the exhibits of nine other boys who were members of the same club.

His club had won first prize at the fair and he was awarded first place for individual honors among his fellow clubworkers for having the best report, story and exhibit of potatoes.

While Joe was examining the prize tags on the exhibits, a local business man passing by noticed the look of interest and admiration on Joe's face. He stopped and watched the movements of the boy, finally walked up to Joe and asked him about the exhibit and why he was so interested in it. Joe explained in detail how the teacher of their school with the help of the County Club Leader had organized a potato club among the boys. He then explained how they bought good seed, and how they treated, cut and planted it. He also told the interested listener about the different meetings held during the summer months for the purpose of demonstrating the best

methods of taking care of the growing crop. Then with pride he informed the man that the members of the club had raised twice as many bushels of potatoes per acre as their fathers had on the same type of soil.

He also added, "We did not only grow a crop of potatoes, but we kept an accurate record of how much it cost to grow them and how much we received for the crop. My profit was \$78.00 on a quarter of an acre and with that money I bought a purebred Holstein calf."

The business man replied, "Well done, young man, are you going to join the club again next year?"

"You bet I am going to join the potato club," replied Joe, "and I want the boys of our school to organize a calf club, too. I learned a lot last summer and I want to learn some more about farming."

The above statement is typical of the statements received from boys and girls who are members of well supervised clubs.

What is being done to promote work of this nature among the boys and girls who are interested in agriculture and home economics?

The Smith-Lever bill of 1914 made provision for extension work in agri-

WHAT BOYS and

By A. J. KETTUNEN, Michigan

culture and home economics for the people of the country according to the following plan: The county agricultural agents to work with the farmers, the county home demonstration agents to work with the women, and the county club leaders were to work with the boys and girls and give them a training in these two sciences so that they would obtain a full appreciation of the importance of work of this nature.

These three phases of the work are supervised jointly by the Federal Department of Agriculture and the State Agricultural Colleges. In the latter institutions of each state, departments have been created for each type of work, with specialists in charge.

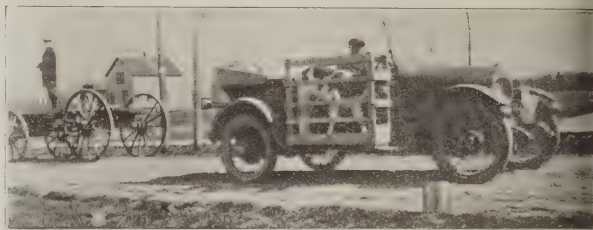
The writer of this article is interested in the promotion of Junior Extension work in Agriculture and Home Economics in the state of Michigan, especially in the Upper Peninsula. The program of work outlined by the Junior Extension Department of the Michigan Agricultural College, headed by Mr. R. A. Turner, is such that it can be adjusted to all community needs. The following projects are of-

leader working throughout the county.

The results obtained during the first two years of real organized work were gratifying. The exhibits of the boys' and girls' club work were the drawing cards at all the county fairs.

Notwithstanding the fact that the signing of the armistice caused an apparent cessation in all work of this nature, an effort was made in the spring of 1919 to extend the club work more into the rural districts. With that in mind several counties employed county club leaders. Houghton, Gogebic and Iron counties had a club leader working throughout the year. Alger, Menominee and Baraga had a club leader working throughout the summer months, while the following cities carried on garden work with the city school children on an organized basis: Escanaba, Marquette, Crystal Falls, Bessemer, Wakefield, Ironwood, Houghton, Hancock, Quincy, Copper City, Baraga and L'Anse.

A statistical summary of the past season's work in the Upper Peninsula



The Menominee County Agricultural Agent is Delivering a Pure Bred Holstein Calf to One of His Calf Club Members

ferred to the boys and girls: Agricultural clubs, beans, corn, home garden, potato, sugar beet, baby beef, dairy, pig, poultry and farm and home carpentry. Home Making: Garment making, hot school lunch, canning, butter and cheese, and others.

The illustrations accompanying this article attempt to show the different fields of endeavor which are approached through this work.

Work of this type has been carried on in the Upper Peninsula to some extent since 1914. However, it was not until the spring of 1917, with the entrance of the United States into the great European conflict, that it was advanced on a really organized basis. At that time the Junior Extension Department of the Michigan Agricultural College placed a man in this district for the purpose of promoting the work. In addition, some local funds were given for the maintenance of county supervisors, by county boards, boards of education, civic clubs, etc. During that summer the following counties had short time county club leaders: Houghton, Schoolcraft, Marquette, Delta and Dickinson. Most of the work during that year consisted of gardening work among the city school children.

In the spring of 1918, the following towns in the Upper Peninsula employed a garden supervisor for the summer month: Houghton, Hancock, Quincy, Lake Linden, Crystal Falls, Marquette, Escanaba, Manistique, Menominee, Sault Ste. Marie, Iron River and Ironwood, Bessemer and Wakefield townships in Gogebic county and Rock River township in Alger county. Gogebic, Marquette and Ontonagon counties had a short time county club

will be found on the following page.

In the counties where no paid leaders were employed, the work has been encouraged by the County Agricultural Agents, County Commissioners or Schools and other people interested in the progress of the boys and girls.

Men and women who have been connected with the work know that it is worth while educationally, and the above figures show that it is worth while financially. The total amount expended for the supervision of the work in the Upper Peninsula during the year 1919 was \$8,506.62. The total production of the different Agricultural and Home Economics clubs was \$40,241.20. In other words the boys and girls returned \$4.73 in usable products for every dollar invested for the work.

In Gogebic county where \$3,200 was expended for the supervision of the work, the 1,259 club members engaged in the work produced \$16,589.19 worth of food. A return of \$5.18 for every dollar invested, or an average production per club member of \$13.17.



These Poultry Club Members Are Raising Pure Bred White Leghorns



The Houghton County Livestock Judging Team Represented Cloverland at the Michigan State Fair

CLOVERLAND MAGAZINE

GIRLS CAN DO

Assistant State Club Leader

In addition the boys and girls entered in a work of this nature receive valuable training, for:

They work out a definite home field project.

They apply their arithmetical knowledge to their project in a business-like way.

They learn what co-operation means through their group work.

The social hour is an important part of all club meetings and this part of child life is developed.

They demonstrate to the community, many new ideas regarding the importance of agriculture and successful home making.

The following table gives the school enrollment for the Upper Peninsula for the year 1918. The last column gives the number of boys and girls engaged in club work during the year of 1919.

From this table it can be seen that the total school enrollment is 79,196 pupils. This includes the rural and city schools. The total club enrollment for the year 1919 was 3,749. That means that only 4.5 per cent of the boys and girls were doing work of this nature during the past year.

We have learned two things:

1. That paid supervision pays financially as well as educationally.

2. That work of this nature is really in its pioneer stage and that a vast deal more can be accomplished.

The following letter received from a prospective Delta county club member shows how interested the boys and girls are in the work:

Junior Extension Dept.,
Michigan Agricultural College,
Marquette, Mich.

I intended to raise a pig next year but I haven't the funds to carry it out. I



The Quinnesec Handicraft Club Has Twice Won State Recognition



Michael Kosinsky was the Delta County Garden Club Champion in 1919

POPULATION OF THE UPPER PENINSULA, 1918.

	Graded	Ungraded	Total	No. in Club Work, 1919
Alcona	1,632	250	1,882	193
Alcona	1,507	334	1,901	186
Alcona	3,873	2,095	5,968	116
Alcona	4,339	2,481	6,820	329
Alcona	5,519	462	5,981	86
Alcona	5,765	1,338	7,103	1,259
Alcona	18,908	3,451	21,460	539
Alcona	5,538	330	5,874	332
Alcona	1,770	1,770	3,540	1,770
Alcona	840	441	1,281	1,281
Alcona	432	1,514	1,946	1,946
Alcona	3,392	1,752	5,144	1,115
Alcona	3,403	2,683	6,086	342
Alcona	2,734	770	3,504	312
Alcona	1,228	702	1,930	312
Alcona	58,837	20,359	79,196	3,749

would like to borrow some money if you would be so kind.

I have lived on the farm for sixteen years and once in a while I go to Escanaba, a city about twelve miles from here, and I am just about disgusted with farming and maybe if I have something of my own, it will keep me on the farm. I was going to work in the city next year but my father wants me to stay at home.

Yours truly,

The future of the Upper Peninsula depends upon its agricultural development. Here is a proposition where the school man, business man, banker and agriculturist can join hands to do something for the boys and girls in an agricultural way.



Gogebic County Fair Association Gave \$600 in Prizes to Their Garden Club Exhibitors. More Than 1,200 Boys and Girls are Organized. This is Their Exhibit

Statistical Summary of Past Season's Work in U. P.

County	Money Expended for Work	Kind of Clubs	No. of Members	Value of Products	Cost	Profit
Alger	\$300.00	Handicraft Garment Potato Garden Hot Lunch	45 25 26 66 31	\$ 112.25 63.05 2,242.50 333.41 Operated at Cost	\$ 37.79 28.89 478.09 68.55	\$ 74.46 35.05 1,865.41 271.86
			193	\$ 2,756.21	\$ 612.27	\$ 2,246.78
Y. G. T. Rehner, County Club Leader.						
Baraga	\$275.00	Garment Pig Potato Garden Calf	17 7 26 135 1	\$ 75.23 154.00 637.55 443.90 150.00	\$ 31.80 91.80 129.05 39.11 100.00	\$ 43.48 62.20 508.50 409.79 50.00
			186	\$ 1,459.73	\$ 391.76	\$ 1,067.97
Miss Alba Stenson, County Club Leader.						
Chippewa		Garment	16	\$ 65.60	\$ 33.44	\$ 32.16
			16	\$ 65.60	\$ 33.44	\$ 32.16
Delta	\$200.00	Garment Handicraft Garden Poultry	73 45 204 7	\$ 367.92 223.25 935.00 295.90	\$ 97.27 117.34 66.00 108.73	\$ 270.66 115.43 869.00 188.17
			329	\$ 1,822.08	\$ 389.34	\$ 1,442.26
M. B. Melican, Garden Supervisor.						
Dickinson		Garment Handicraft	69 17	\$ 329.72 84.15	\$ 169.09 30.19	\$ 160.63 43.96
			86	\$ 413.87	\$ 199.23	\$ 204.59
Gogebic	\$3,200.00	Garment Garden	99 1160	\$ 624.19 15,965.00	\$ 239.06 3,567.00	\$ 385.13 12,398.00
			1259	\$ 16,589.19	\$ 3,806.06	\$ 12,783.13
C. E. Gunderson, County Agricultural Agent. A. Junell, K. M. Montgomery, B. Club, John Michelich, John Mahar, Jr., Garden Supervisors.						
Houghton	\$2,600.00	Pig Potato Garden	7 29 532	\$ 178.20 1,925.00 3,590.50	\$ 131.00 800.00 342.90	\$ 47.20 825.00 3,247.60
			559	\$ 5,393.70	\$ 1,273.90	\$ 4,119.80
B. O. Hagerman, County Club Leader.						
Iron	\$1,111.58	Garment Handicraft Canning Potato Garden	89 12 4 4 243	\$ 624.35 35.90 50.45 200.00 2,081.40	\$ 383.87 31.22 17.11 50.00 438.67	\$ 240.48 40.00 33.34 150.00 1,642.73
			352	\$ 4,761.20	\$ 904.65	\$ 3,856.55
Miss Maude Bennett, County Club Leader. W. D. Hill, Garden Supervisor.						
Marquette		Garment Handicraft Hot Lunch Gardening Potatoes	63 30 12 10 115	\$ 270.03 50.45 Operated at Cost 69.50 513.90	\$ 150.84 4.35 23.00 205.00	\$ 119.19 46.10 46.20 308.00
			115	\$ 902.93	\$ 393.19	\$ 519.49
Menominee	\$300.00	Garment Handicraft Potato Hot Lunch Calf Poultry Garden	86 9 32 23 15 25 152	\$ 401.30 84.53 1,100.00 Operated at Cost 1,000.00 500.00 2,000.00	\$ 150.86 31.22 430.00 650.00 500.00 500.00	\$ 250.44 53.51 670.00 350.00 200.00 1,500.00
			342	\$ 5,285.83	\$ 2,262.08	\$ 3,023.95
R. N. Kebler						
Schoolcraft	\$520.00	Garden	312	\$ 790.81	\$ 136.54	\$ 654.37
G. W. Beckwith, Garden Supervisor.						
TOTALS	\$8,506.62		3749	\$ 40,241.20		

CLOVERLAND MAGAZINE

Cow-Testing Associations and Settlement

By B. G. PACKER

Director of Immigration, Wisconsin Department of Agriculture

OFFICIALLY credited with nearly two million dairy cows and the largest output of milk products, it might also be presumed that Wisconsin should lead in cow-testing associations. Such is the case. There are eighty-two.

These voluntary clubs among neighbors increase production by providing for periodical tests and weighing of milk, keeping of records, making calculations, and reporting results.

bought at the same time.

2. Sires can be exchanged and later purchased from other members of the association or other associations.

3. Stock for sale can be advertised and sold to better advantage than by a single farmer.

4. A buyer can come into an association and know if one farmer does

culture about opportunities for profitable farming, especially dairying, and reports from railroads show that more than two thousand took up farm homes in that part of the state during this period. County agents are working with all farmers, new and old, urging them to tie up with cow-testing associations, or in any event showing how otherwise to obtain more profit in dairying.

So often have we heard it that now it seems superfluous to assert that Wisconsin is the foremost dairy state. But Iowa and Minnesota are coming fast. Most persons, however, who have visited Upper Wisconsin will agree that the greater part of our best grass region still remains to be opened. And not only are we to depend upon newcomers for this further supremacy and development but also upon more dairy cows making a real profit.

Men who make good with cows are the best advertisers for the state. They have friends elsewhere looking for lower-priced lands. A couple of illustrations will suffice: Last year one dairyman, Albert Anderson, of Shell Lake, brought in nine relatives, each of whom purchased and located in his neighborhood, and another south of Ladysmith added seven former acquaintances. Their new neighbors are starting likewise with dairy cows.

So testing associations are really developing the state from within and without at the same time. They

The Cow

There have been many famous short speeches made, but perhaps none is more eloquent, none as peals more directly to a vital subject as well as sentiment, nor embraces a broader scope, nor contains more real philosophy than the speech by Colonel D. Perry on "The Cow." It should be read in the class rooms of the public school, used as a text in the economy of daily life, committed to memory. Here is the famous speech:

"Of all the animal friends man, she is the greatest. I wish as you sit down to dinner today might take away all she has contributed thereto. I would take away the cup of milk on the baby tray; the cream from your coffee; the butter for your bread; the cheese to accompany your pie; the cream biscuit, the custard pie self, the roast beef, the delicious gravy, and leave you a meal of potatoes, beets, pickles and foot picks. Every scrap of her, from nose to tail, is used by man. Her horns are used to comb our hair; her skin upon our feet, her hair goes into the plaster on our wall; her hoofs make glue. Her tail makes soap, her blood is used to make our sugar white and her bones are ground to fertilize our soil. She has carried man from Plymouth Rock to the setting sun. Her sons turned the sod in the settler's clearing. Her sons hauled the prairie schooner for the sturdy pioneer while she followed. When the day's march was done she gave the milk to fill the mother's breast, to feed the little children. Indeed, we hail her proudly as the foster-mother of the human race."

stead of 82, we have 182, 382, 1,000. There must be no disposition to run back as Lot's wife did. Salt is needed in the butter, but there is a better way to get it.

Cow testing associations encourage a get-together spirit in a community, and when farmers begin comparing notes on cost and profit of their individual cows and herds the non-producers soon disappear. There is nothing more beneficial to farmers



Cloverland Beauties from Tested Ancestry

Such associations do not attempt results by absent treatment. They get right hold of the patient's pulse and count. They diagnose present trouble and point out unprofitable animals.

Because he cannot afford mistakes, a cow-testing association is about the most helpful society the incoming settler on cut-over land may join, if there is one in his locality. If not, he should by all means get in touch with his county agent, and help start something.

Men who make good on these lands start out in the first instance by adding to the size of the herd and clearing at the same time, and it is as fatal to success to keep poor animals of an unknown quantity, as not to open land.

Unless he knows where he is at during the important first period, the beginner won't reach the second.

Cow-testing clubs are steadily extending their field of usefulness into new neighborhoods, especially group settlements.

About 450 cows are included in an association. A competent person is employed to visit every farm once a month to weigh, take samples, and make a Babcock test of each cow's milk. He obtains a complete record of the quantity of milk and butter-fat produced by each cow in twenty-four hours and the amount of food consumed.

An accurate calculation is worked out showing her monthly production, pounds of milk, butter-fat, different foods and cost, profit over food, returns given for a dollar's worth of feed, cost of producing a pound of butter-fat and a hundred pounds of milk.

The contribution of these associations to state development is apparent to everybody.

In a few localities breeding associations are operated with cow-testing clubs. Some of the benefits claimed are:

1. Better sires can be secured at the same price if a number can be



Cows, Clover, and Contentment

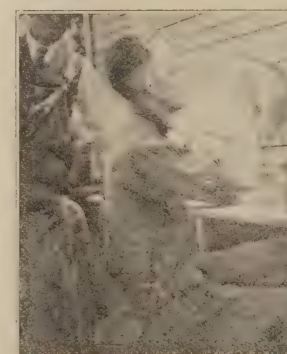
not have what he wants he may get it from some other member.

5. If the herd is a pure-bred semi-official yearly records can be made cheaper than otherwise.

About ninety thousand acres of new land are being freed from stumps each year in Upper Wisconsin and twice as much more brushed off and put in hay pasture. Such pasture is worth from \$8 to \$10 an acre a year when good cows are kept. At present prices for butter-fat this estimate very likely is too low.

Common cows are being eliminated. Following the efforts of county agents and state-wide campaigns by the Wisconsin Live Stock Breeders' Association, the state experiment station and bankers, many first-class dairy sires every year are being shipped into these newer settlements from older communities. Consider what this means ten years, yes, five years from now.

Farmers from other states are looking toward Wisconsin and writing for information. In 1917-1918 more than fifteen thousand homeseekers made inquiry of the division of immigration of the Wisconsin department of agri-



A Cow Detective on the Trail

have paid. Records, buyers and prices prove it.

Many miles indeed have been covered on the journey to dairy improvement in Wisconsin, but cow-testing associations must be multiplied until in-

than talking farm matters over among themselves, and cow testing associations bring them together in a business way. The results are soon reflected in the size of the cream check and in the dairy cash box.

CLOVERLAND MAGAZINE

Building an 11,000-Acre Ranch

By F. W. LUENING

A GROUP of business men were gathered about a table in a tenth-story office in a mid-west metropolis. Most of them did not know a plow from a tractor. They were just business men. But they were about to engage in sheep raising.

"Every business," they said, "must be practical management." So their thoughts turned toward a sheep man—a real expert. They cast about for the biggest man they could find. And they found George McKerraw—with a national and international reputation.

So him they went with their plans for certain proposals. He, in turn, went a step further—he insisted upon a radical farm superintendent. The business men agreed. McKerraw secured the superintendent. And so, George McKerraw, Charles W. Scholtz, the farm superintendent, W. C. Bissell, Frank J. Edwards, and Carl Rix, of Milwaukee, jointly solved the problem. They got down to fundamentals.

They had a tract of about 11,000 acres of wild land in the Chippewa Valley, Wisconsin. It was high land, long, heavily brush covered in spots, but pretty well timbered in other spots. On the tract were three improved farms, one near each end, and one in about the middle.

"Sheep," they said, "need pastures to over and graze upon. They need water feed; they need shelter in this rough country; and they need to be moved out and sheared, and dipped. We must provide pastures; meadows for hay; corn, and other crops, for feed; buildings for shelter, and equipment for shearing and dipping. So this we must be builders and farmers. We must clear land, prepare meadows, plow and plant and harvest. This is a farming venture as well as a sheeping venture. It means that we must not forget the sheep until we have a place to care for them."

So the Chippewa Valley Sheep Company began its operations. It did not start with sheep. On the contrary, at first, to the casual observer, seemed to be the last thing anybody worried about.

Most a year passed, and yet hardly a sheep was visible on the ranch property. But other things were visible. The hills lay piled in windrows. The eye penetrated clearings, one upon another, down the valley. Buildings grew; the sheep stood gaunt against the cottonwoods. The whine of saw-mills poured from the hollows. Primitive

Since the day of the meeting in the metropolitan office, 900 acres have been turned to cultivation on the Chippewa Valley Ranch. Four thousand acres have been brushed, and are now growing clovers and grasses. These 4,900 acres have been fenced with a ground barbed wire, and a 32-inch woven wire, topped by two strands of barbed wire—fences that will turn any kind of live stock. Last year 400 tons of hay were put up, and about 4,000 bushels of oats and barely were raised. A wonderful corn crop, fully matured, was harvested, much of its great yield being husked, the balance being filled in to the silos. At least one of these silos has been completed with a capacity for 3,000 or more sheep. A sheep barn 72x360 feet has been built. Down the center is a driveway, and twenty-four pens, each provided with running water, edge this driveway. A creamery, an ice house, a laundry, a smoke house, and a bath house for employees, have been completed.

And during all this time, sheep seemed still to be remote from the thoughts of the business men. They cut timber in the forested tracts during the winter and piled up 500,000 feet of hardwood, ready for the portable saw-mills when the spring of 1920 cleared away the snow. They gathered 15,000 cedar fence posts, 200 cords of shingle blocks, and about 600 cords of 4-foot firewood.

They started men fishing the Chippewa River—not for muskies, but for "dead heads"—water-soaked logs, that had sunk during the days of big tim-

ber; and they built the ranch with these resources.

The lumber cut from the forests was used right on the ranch. The timbers fished from the river went into the ranch buildings. Sand and gravel were hauled from the hill sides, and became concrete. Fence posts cut in the woods, appeared in orderly rows, supporting wire that enclosed the fields.

But more than that. An orchard was set out on a hill top, and promptly became one of the most interesting experimental orchards in the state. The state's horticultural experts took notice; and they made the orchard a state venture, watched by state experts.

Then on two of the improved farms, certain apple trees were discovered. They were pretty well buried in shrubbery, and dwarfed to insignificance by surrounding trees. So the surroundings were cleared, and the apple trees were pruned. Last year the branches of these trees were propped up with poles to help bear the over-load of fruit. This fruit went into the ranch's larder.

After all, if it is true that buildings and feed must be ready before sheep can be raised, then it is equally true that buildings and food must be ready before men can live and work to erect buildings, and raise feed for sheep.

Therefore, not only were the old apple orchards renewed, and new orchards planted, but the nucleus of a dairy herd or two was used to build up a herd that alone would represent a life's work and a life's income for many an individual farmer. Forty Holstein cows were placed into the

ter and food ready for them. They were acclimated during the following months, went into the winter in excellent condition, and were lambled with unusual success in spring.

These flocks didn't begin to tax the capacity of the ranch. It is a commentary upon the methods—ample provisions first; then the live stock.

In most ranching ventures, the thought is reversed. Live stock is purchased, often in considerable numbers; it is shipped to the ranch property; and then there is a wild scramble to find shelter, and a wilder scramble to find food stuffs. Animals are either crowded into inadequate barns, or are left without barns of any kind. They



George McKerraw, Wisconsin's and America's Most Noted Shepherd

are forced to eat improper feed because they get what the stockman can lay his hands on. They struggle through the winter, and the spring gives them little real relief. Ranges are unprepared; there are no pastures; and so they muddle along on brush and forest grass as best they can.

This is contrary to every rule laid down by the business men behind the Chippewa Valley Ranch.

"Shelter and food first—live stock second." That seemed to be the motto. It has been rigidly followed. Development and building operations are constantly ahead of the live stock. The ranch is now ready to double its flocks. It is said that an additional 3,000 sheep will be grazing during the coming summer. But in the meantime, further development work is in progress.

While he argues in favor of careful preparation, Superintendent Scholtz laughingly tells this story on himself:

In the dead of the northern winter, the telephone bell in the ranch house broke the stillness.

A muffled voice came over the singing wires:

"There are three sheep down in my wood lot. Guess they belong to you. Better come and get 'em."

The ranch superintendent plowed his way through snow-covered roads. He found the sheep—ten miles down the valley. They were calmly stowing away a lunch at Neighbor John's straw stack.

The superintendent spent a strenuous hour rounding them up. They were full of vigor, in exuberant spirits, and in the pink of physical condition.

These three sheep had strayed away two months before. They had escaped from the ranch and its protecting buildings in mid-December. And they had thrived out in the brush, in the snow, and in the cold, through sixty long days and nights. When Neighbor John telephoned, they were gam-

(Continued on page 20)



The Principal Ranch Buildings Are Protected by Natural Sheltering Slope



One of Several Lakes on 11,000-Acre Ranch

changed their course, and began to grow. Corn fields stood, dark against the forest foliage. Mowed fields lay in the distance, and the hills loomed at the edge of the valley.

ber operations in this valley. They fished out two million feet, and cut the logs into lumber with their own portable saw-mills, operated on the banks of the stream. They developed and used the available resources around

barns on two of the improved farms. The barns were fully equipped—as good dairy barns should be. Today the milk and butter and cheese produced by these dairy cattle is an important part of the ranch menu. The men who are developing that land to raise the sheep, are living and thriving on dairy products already produced on that land.

The dairy herd resulted in quantities of skimmed milk. So, a pen of hogs was added, and these hogs now provide part of the meat used by the ranch superintendent and his men.

And so the net resources have been converted; facilities at hand have been used, and developed; a dairy farm, a hog farm, a fruit farm, a truck farm, and a poultry farm have been created. And yet, this is a sheep ranch!

But then George McKerraw went to England. He returned with 100 purebred Shropshire rams. When they arrived buildings were ready to house them, and mows and granaries were ready to feed them. At about the same time, McKerraw brought 3,000 head of white-faced ewes from the State of Washington. These, too, found shel-

CLOVERLAND MAGAZINE

GROW PORK—DON'T BUILD IT

By RUFUS R. RUNKE, Bank Agriculturalist

WHEN it comes to producing pork on a rock bottom basis of economy and profit there is no cheaper and more efficient method than the abundant and generous use of most any legume forage. With an abundance of clover it seems to me there should be no difficulty in growing the cheapest and best pork that finds its way to market. We can readily see the necessity of an abundance of grain and corn for the finishing process in pork marketing, but what about the other and longer boarding period connected with the maturity of pork? Do you know how long it takes a pig to make a hog of himself and when he finally arrives at that stage in life do you know on whose expense it is done?

If economy counts in pork production why not grow it with the most efficient feeds at the proper period in the porker's life? As a rule a 225-250 pound hog needs several months to grow to the required frame and form to support a marketable sized carcass and most of that carcass does not develop with highly concentrated grain rations. Bone and muscles require lime and nitrogen in abundance and when you consider sources of such



Growthy Grass-fed Hogs

feeders' pens. And lest we forget, let me also suggest that the demand for "grass fed" pork is equally as possible and practical as the "grass fed" beefs. There is no reason why a light, grass-fed type of hog could not find and develop an appreciative market.

made breeding of swine unprofitable and comparatively unsuccessful. As a consequence they have come into the habit of looking to the northern and western breeder for a new supply of an improved size and quality of hog which they soon and again degenerated under their unnatural and artificial feeding and breeding conditions. Their abnormally fat and corn-fed brood sows made most undesirable and unprofitable breeding stock and it frequently was said that within a few years their brood sows again brought twins instead of litters.

With all the above conditions, circumstances and environments there is every reason to believe that "Cloverland" should become the "Promised Land" of pork production at profits.

In a recent experiment at the University of Wisconsin it was found that Wisconsin offers great opportunities for the further development of the swine industry. Inasmuch as Wisconsin leads in dairy production, considerable attention has been given to determining the best ways of utilizing the dairy by-products—skim milk, buttermilk and whey—in pork production, and to compare them with other protein-rich feeds such as tankage, linseed meal and wheat middlings. Wisconsin is especially adapted to barley culture and the crop of this grain will now, for the most part, be fed to stock instead of being used for malting purposes. Several trials have been carried on recently to find the value of barley for swine and to determine the best ways of feeding it.

Skim milk and buttermilk are rich in protein and high in mineral matter, especially in lime and phosphoric acid, which are the chief minerals in the bony skeleton. These dairy by-products are therefore ideal supple-

ments to the grains for growing swine which need rations rich in protein and phosphoric acid. Most unfortunately, skim milk and buttermilk are not only rich in protein but this protein is rich in the very amino acids or "building stones" which are not plentiful in the grains. This is one of the reasons why these dairy by-products are such valuable feed for growing pigs.

In the past it has been commonly considered that skim milk, when mixed with grain, was worth one-half as much per 100 pounds as corn is worth a bushel. It was to find out the actual feeding value of skim milk that several trials were carried on, comparing skim milk with tankage. In the last year the pigs averaged 137 pounds at the start of the test. The two lots received ground barley in self-feeding in addition to tankage in self-feeding to one lot and skimmed milk handled twice a day to the second lot. The tankage-fed pigs gained 1.64 pounds per head daily at a cost of \$14.75 per cwt. of gain, while the skimmed milk pigs gained 1.89 pounds per head daily at a cost of \$14.45 per cwt. of gain.

In these trials skim milk, compared with the best commercial substitute



Pigs in Clover, and They're Enjoying It

feed constituents what better and more economical feed can you suggest or think of than clover.

Dairymen for decades have advocated exactly that feed for their young and growing stock, knowing full well the requirement of a young animal, and with a growthy calf they could safely associate the future full sized and well developed adult. If it is so of cattle, why isn't it equally applicable to swine? I say it is all the more so, for the profit of the hogs lies directly in its youthful marketable carcass rather than its value as an aged adult. With a youthful carcass goes a shorter boarding period and a consequently smaller board bill.

What crop can compete with clover or any other form of legume as a growth promoter? I believe we can safely divide the responsibility for cheaper and more economical pork production with our fellow farmers of the corn belt by developing the breeders and feeders in regions of cheaper land and forage abundance and delegating the finishing and fattening to our corn belt contemporary.

Only a few acres of real clover forage will maintain scores of hogs in good-growing condition and when the time for market arrives and the laden hogs are demanding a premium let them find their way into corn belt

Past experience in the swine industry has demonstrated that confined and intensive methods of feeding in the corn belt was not conducive to the proper development of breeding herds.

Restricted feeds and lack of variety of feed on the average corn belt farm



Another Form of Clover That Insures Strong, Hardy Pigs



A Purebred Duroc, Mostly Grass-fed

was actually worth 77.6 cents per pound. The small amount of skim milk needed to balance barley, which is richer in protein than corn, is shown by the fact that the average gain of these pigs which made excellent gains was 7.6 pounds per head and only 6.6 pounds skim milk. That of this weight therefore needed only an average less than one pound of skim milk for each pound of barley to balance the ration. In a trial this winter with younger pigs, skim milk fed with barley was worth 88 cents per pound, compared with the value from another lot fed barley and whey.

The same comparison was also made this winter, using shelled corn and grain. In this trial skim milk was worth 67 cents per 100 pounds. In another experiment to compare skim milk and tankage was carried on the summer of 1915. One lot of pigs was hand-fed shelled corn and skim milk and several lots of pigs were fed shelled corn and tankage. Compared with skim milk with the best tankage skim milk had the unusually high value of \$1.45 per 100 pounds of feeds at present prices.

From the results of these trials we may safely conclude that even

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MORE ABOUT SUNFLOWERS FOR SILAGE

By ANDREW BOSS, Chief of Division Agronomy and Farm Management,
University Farm, University of Minnesota.

DURING the past three or four years considerable attention has been given to the matter of raising sunflowers for silage in various parts of the United States. The crop seems to be slightly more frost resistant than corn and therefore is tried most largely in localities where corn is likely to freeze out, or be injured by summer frosts.

Following favorable results, as reported from the Montana Experiment Station, some trials were made at University Farm, St. Paul, at the Northeast Sub-station at Duluth, and on farms scattered throughout the state. Experience indicates so far that sunflowers are adapted to each of these localities and that they can be grown with more or less success.

At University Farm in 1919 a yield of ten tons per acre was secured. This is the same yield per acre as is usually obtained of corn silage. The sunflowers were ready for silage at the same time the corn was. They were cut into the silo and fed during the winter of 1919 and 1920. In changing from corn silage to sunflower silage there was a slight objection on the part of the cows, but when they became accustomed to the new feed they ate it well and seemed to do as well as on the corn ensilage. The consensus of opinion at University Farm is that where corn can be successfully grown it will be a more satisfactory feed than sunflowers. Where there is doubt about the corn crop maturing, however, sunflowers can very well be made to take its place.

At the Northeast Sub-station sunflowers have been grown in a small way for two years. Here also they are proved to be more resistant to frost than corn and a satisfactory crop has been obtained both years. Owing to the small area devoted to the crop no extensive investigations of their adaptability as silage have been made. They have, however, been used successfully as silage for poultry and have been fed to a slight extent to the livestock. There is no difficulty in growing the crop at Duluth and there is every reason to believe that the silage will be just as acceptable there as it is in Montana and in other places where it has been tried.

At the demonstration farm at Meadlands sunflowers have been grown for two years. A yield of eight to ten tons per acre has been obtained. Silage has been found of good quality



Experiment Plot of Sunflowers at the Upper Peninsula Station, Michigan Agricultural College

and makes a satisfactory feed for the dairy cows.

The crop is handled in a way similar to corn. That is, seed is planted in drills in May or by the first of June, is cultivated just as corn is, and is handled in the same way at the en-

silage making time. The crop should be cut just as the seed begins to mature.

The composition of the silage is not far different from that of corn silage. It is fed with best results when accompanied by clover or other legume hay.

the same plant the assertion assumes new and general significance.

"After the test on the company's farm last year I am now absolutely sure and can submit figures for public record as showing that the sunflower is a better milk and butterfat producing medium, that it can be grown more cheaply than the grains, and that it will thrive on dry land where peas, oats and corn would scarcely come to maturity. Moreover, while it grows well in dry soil it accumulates more moisture in its make-up.

"The one essential condition is that the sunflower be treated in silos. It is hard and coarse when matured—too tough to serve as cattle food, to be exact—but the silo softens and melts it and it comes out something like a mash. The cattle like it, they produce more and better milk, and they put on good, solid flesh.

"What more can be asked of a cattle feed except that it be grown cheaply and with little trouble, that it be a good land cleaning crop, and that it will pull through in a dry year?

"Let all these trying demands be made upon the sunflower and it comes back with 100 per cent economy and efficiency.

"The following figures were prepared after a series of tests with forty Holstein cows, rationed for terms of two weeks on corn, on oats and peas, and on sunflower plants treated in silos:

Silage	Daily Milk Yield	Butterfat Test	Animal's Gain In Weight Daily
Peas and oats.....	25.88	3.5	1 lb.
Corn	26.4	3.4	1.85 lbs.
Sunflowers	27.24	3.6	2 lbs.

"The quantity of silage supplied each animal daily was thirty pounds, and in addition a prescribed amount of loose feed was provided.

"Perhaps the most important part of the experiment relates to the production of the sunflower plant. The whole plant is used in the silo, and the yield per acre is thirty-four tons, which is about five times as much as oats and peas, and two and one-half times as much as corn. This means that an acre in sunflowers will support more than twice as much stock as an acre in corn, peas or oats. Which is to say that a farm of 320 acres will be able to sustain and produce twice as much live stock as it is sustaining and producing today.

"The silo used at the Strathmore farm is known as the stave type and it is the type most generally in use. It is said that a good carpenter assisted by three men can erect one of these silos, with the exception of the roof and after the concrete foundation has been laid, in less than four days. The standard size is 20x40 feet, and a circular hip roof increases the capacity 20 per cent.

"The sunflower is grown in rows three feet apart and as these are intertilled the land is left in good shape."

A Dairy Test with Sunflowers

By HENRY A. PERRY

REPORTS similar to the foregoing by Prof. Boss are coming in from practically all experiment stations in the northern states, and up to the present time have been more or less general in their scope. Actual test records of the feeding quality of sunflower silage have not been made, so that definite results are not obtainable from these authentic sources. However, sunflowers are approved as a substitute for corn silage, and record experiments will be conducted this year at some stations and on some dairy farms.

In Alberta, Canada, where the season is shorter than in any district in the United States, and where frost menace is ever present, more interest

has been taken in sunflowers and they are becoming more generally adopted as a silage crop than in this country. That results are highly satisfactory in Alberta may be noted from the following report of Prof. George H. Hutton, animal husbandry expert for the Department of Natural Resources of the Canadian Pacific Railway.

Prof. Hutton says:

"If it were to be announced that it had been demonstrated by actual tests that helianthus had been found to be a better cattle food than corn, or a mixture of oats and peas, the declaration would attract little interest, but when it is explained that helianthus and the humble sunflower are one and



One of the Experimental Plots of Sunflowers in Northern Minnesota, University of Minnesota

COVERLAND

MAGAZINE

The Illustrated Monthly Magazine of Greater Cloverland

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 G. F. DENISKE, Circulation Manager

THE ANDREWS PUBLICATIONS,
 313, 315, 317, 319 Quincy Avenue,
 Menominee, Michigan

Entered as second-class matter January 27, 1916, at the post office at Menominee, Michigan, under the Act of March 3, 1879.

Subscription price, postage paid, \$1.00 a year in advance.

Advertising rates on application.

Make all remittances to Cloverland Magazine, or to R. M. Andrews, Publisher.

MAY, 1920

Shortage

SHORTAGE in anything is disastrous, and it is often disastrous. Just now the farmers are suffering a shortage of about everything under the sun—labor, feed, seed, cash. How the farmers are going to increase production this year with all these shortages confronting them is a problem for the theorists to propose solutions, as the practical farmer can't do it.

The cry of the land is "produce more." Financiers declare the only thing that will avert a panic is more production. The captains of industry cry "produce more," and the echo comes back from the ranks of labor, "give us more money and shorter hours." The attention of the country has been and is now focused upon the industrial and commercial life of the big cities and industrial centers by daily quotations in the newspapers of new boosts in prices and new demands for more wages.

The farmer has been overlooked in this hurry-scurry to grab more. It is accepted as an understanding that he will produce more. How can he, with less farm labor available than at any period of the war, with less seed available than last year, with the smallest dollar he ever had to buy machinery, seed and hire labor?

Farmers can not pay the price big industries offer labor to leave the farm. Farmers can not pay the high price for seed to put back into the soil on an increased acreage; nor can he handle increased acreage because he can not pay the price for labor.

There will not be nearly so large a wheat crop as last year. The survey of the nation's winter wheat on April 1 shows approximately 100,000,000 bushels less wheat than in 1919, and crop condition was estimated at 75 per cent, as against 96 per cent at the same period in 1919. The spring wheat acreage can not possibly overcome this shortage.

There is no possibility of a potato crop equal to that of last year. Seed is too high to plant a large acreage, and a large acreage is prohibited again by labor shortage. Many farmers sold "short" on seed potatoes this spring or sold out entirely, expecting the usual break later on when they could buy seed at a lower price than for which it was sold. It didn't happen this year. The only place in the entire country today where seed stock is above normal is in one county in Maine, and the surplus there was only 1,200 cars on April 1.

And so, the story of farm production for 1920 runs all the way down the line. There is a shortage of everything to put back into the ground to grow more crops. And the price of everything to put back into the ground to grow more crops is too high for increased acreage. But increased acreage could not be handled because of the shortage of farm labor, and the consequent high cost of farm labor.

The outlook is not encouraging for increased production in cereal crops or potatoes—the "poor man's bread." And the outlook for increased production of beef cattle, sheep and wool is even less encouraging. The drought in

the western states last year caused the heaviest shipment of cattle and sheep to slaughter in the history of the nation, and most of these sheep and cattle were marketed at a loss because of a gutted and demoralized market. Even breeding stock went to slaughter. Years must elapse before the big herds and flocks may possibly be built up to their former magnitude, and it is doubtful if this can be done because there is a shortage of range. New laws permitting whole sections of land to be taken up for "dry farming" home steads are cutting up the ranges and monopolizing the "water holes." So there will be a meat and wool shortage in the western states at least, which have provided annually a large share of food supply and clothing for the nation.

Fortunately, the farmers of Northern Michigan, Northern Wisconsin and Northern Minnesota have in the meat and wool shortage situation an opportunity to make up for the shortage in field crops. They may add to their dairy stock a few feeder steers or cows, and put a flock of sheep on the farm. They may further add to the meat supply of the nation and incidentally offset the field crop shortage by going more heavily into hog raising.

There are millions of acres of idle cut-over land in this Cloverland territory that will make good beef or mutton by fall, without preparation, although a few days' brushing will pay big profits at the end of the season. But there is no reason why the great areas now covered with grass and clover should not be utilized this year for meat and wool production.

It is up to the large land owners to induce every farmer, every live stock grower, to use the feed on their lands this year, by selling on liberal terms, lease option, or free rent for the season. Grazing any tract of cut-over land for a season will add to the value of the acreage in clearing and fertilization, compensation enough for land that would remain idle otherwise.

Some of the big corporations and individuals owning large areas of cut-over land have adopted a most liberal policy toward the rancher and settler, and they are doing all they know how to help others help themselves, but some want to barter, and gouge, and "take all the traffic will bear."

The farmer or stockman can not increase live stock production unless he has the pasture, and he can't invest all his capital in land, leaving little or nothing to buy stock to put on it. But if he is permitted to invest his capital in live stock, he will soon be able to pay for the land.

It is time for the land owner, the business man, the mining corporation, the lumber barons, manufacturers to wake up as to the necessity of giving the farmer in these northern states immediate attention and aid. Unless this is done, and done now, the growing shortage of everything to eat and everything to wear will reach such proportions within another year that still higher wages will be demanded and must be paid to keep pace with the still higher cost of living due to a still greater shortage of the necessities of life.

We can do without automobiles, without 50 per cent of the sundry products manufacturers are turning out by over-bidding the farmer for labor. There must be a release of labor somewhere to make it available for increased food production, or the shortage will be appalling within a very short period of time. There must be a revision and re-apportionment of industrial production so that the farmer may get his share of labor, the large land owners must release their immense holdings of idle acres for increased food production on terms and conditions that will be an inducement for manual labor to turn toward agriculture for a livelihood.

The shortage of food of all kinds is apparent in the grocery bill and the size of the package delivered. The situation does not need debating—it requires action. We are only feeling the pressure of food shortage now—next year we will feel the jolt, and it will be a hard one.

Daylight

THE farmer works by daylight, and very often does the chores morning and evening by lantern light. He doesn't need any legislation to force him out of bed an hour earlier in the morning because he is always up before the sun, and no amount of legislation can arrange farm schedules so that he can go to bed an hour earlier in the evening. He gets up at dawn or earlier in order that the chores may be out of the way and give him a long day in the field—not eight hours, but twelve or more. He must work every daylight minute to get his crops in and then to harvest them. Chores and other incidental work on the farm are done at both ends of the long day in the field.

The horses can't be fed until the day's work is done, which is twilight. The cows don't come in from pasture until the evening sun has set. Moving the hands of the clock one hour ahead won't change the schedule of farm animals one minute. Farm work is done on "sun time" no matter where the hands of the clock point, and legislation will not regulate the rising and setting of the sun. If it did, and the sun was hurried up an hour, it would set an hour earlier, and we would have the same problem of "daylight saving" to do over again unless the law commanded the sun to stand still an hour or so each day to meet requirements of the newly ordained order of things.

This "daylight saving" fad is nonsense to the farmer, and he could not adjust himself and his farm to the change in time without adding about two hours more to his working day. He would be compelled to get up an hour sooner each morning, and because nature pays no attention to man-made laws he would be kept up one hour later in the evening to do the chores at 9 o'clock instead of 8 o'clock.

There are many other reasons why this fad should not be foisted upon the farmer—among them loss of about 10 per cent in milk production by forcing cows to earlier milking mornings and evenings to meet train schedules and deliveries in the city, loss in time each forenoon waiting for the dew to be absorbed by the sun, (at 10 o'clock instead of 9), robbing him of the services of the children to help do the chores because they would be starting to school about daylight, piling up the same two additional hours and more work upon the wife, denying him the privilege of shopping because the stores would be closed in town before he could afford to quit the field. But the fact that the farmers throughout the nation are unanimously against these spasmodic efforts to tamper with the clock ought to be sufficient reason for right thinking city people to forget it, without detail explanation and argument.

The Farmer Speaks Up

BIG business, little business, congressmen and legislators, have been busy for years telling the farmer what he needs, what he ought to do and how he should do it. Is it any wonder then, that the farmer has now decided to say something for himself, tell the other fellow how big business, little business, congress and the legislators should be run.

Of course there is merit in some of the talk and advice that has been showered upon the farmer without his asking. The farmer has listened patiently, meekly accepted what was handed him if he didn't follow all the advice. Now, what is wrong about the farmer having his say. Of course he does not know it all any more than do those who have been prolific with ideas of what he ought to do and think, but he should have the privilege of telling how big interests, little interests, congressmen and legislators affect his business, and what they should do from his viewpoint. He may not know what all the other institutions or the solons, but he does know what makes production difficult and costly, and what margin of profit the

market returns for his production.

If he wants better living conditions lower prices for what he consumes at higher prices for what he produces he is merely lining up with the urban population in a universal cry for better economic adjustment. He is asking the impossible in demanding lower prices for what he buys and higher prices for what he sells unless the waste in handling and numerous profits made between producer and consumer are minimized, or a large portion of middle cost eliminated. An ultimate consumer of farm products are demanding the impossible unless the same economies are put in practice.

The farmer has borne the brunt of accusations and charges of profiteering, of being responsible for the high cost of living. At last he has rebelled and it is about time. In righteous indignation he protests his innocence and he proposes to prove it through organization and the employment of high priced experts to tell the public just what the farmer is doing, and let congress and legislatures know in a forcible manner that the farmers are entitled to a hearing and will back up demands for redress of wrongs.

This organization is not of the long haired, wild-eyed breed, promoted by agitators with stiff collar and soft hands. It is a business organization of farmers, officered by farmers engaged in farming as a business, informed and advised by experts in farming, dairying, breeding, marketing, and everything else pertaining to farming. It is known as the American Farm Bureau Federation with state and county bureau membership enrollment covering twenty-eight states, and starts off with \$200,000 as a working fund the first year, beginning March 3, 1920. The president of this organization is a practical farmer in Iowa, a man who has spent his life on a farm within one mile of where he was born, a high type of citizen and a successful farmer. His name is J. R. Howard, better known as "Jim" Howard, and the farmers are going to pay him \$15,000 a year to act as president of the biggest business institution in the world. Presidents of other big institutions are left at the flag pole in comparison to the enormous business he represents, except in drawing salary, but \$15,000 a year is enough for "Jim" Howard. It is just about what it is worth to leave the active management of his farm in Iowa in other hands.

"Jim" Howard is a man who has little to say, but does things, and for that reason the farmers are going to have their say through him and their organization of which he is president.

New Settlers

NEW settlers have an advantage in locating in any portion of Northern Michigan, Northern Wisconsin and Northern Minnesota, through advice given by such non-profit making organizations as Commercial Clubs, Chambers of Commerce, County Boards of Supervisors, state immigration officers and county agricultural agents.

No other section of the country offers such a variety of official and public spirit aid. The prospective settler has the assurance that he is dealing with men and organizations whose only purpose is to help him locate well and prosper. They are not interested in selling or leasing land—their mission is to serve the stranger, conserve his interests in order that he may enter upon his development work with capital, tools and implements to more quickly turn the idle land into producing acres.

It is the right spirit and will pay big dividends to the settler and to the community in which he takes up his new home.

The more the agricultural colleges and the U. S. Department of Agriculture accomplish, the less some of our learned solons in Washington think they need in appropriations.

Potatoes look like the big cash crop this year.

CLOVERLAND MAGAZINE

FARM ANIMALS

By H. H. BRYANT, D.V.M.

Food for Young Calves

YOUNG calves need whole milk, approximately two quarts per day for the first few days. Feed often in small amounts. Teach calves to drink the whole milk before changing to skim. Then gradually change to skim.

Skim milk is good feed. Add ground feed, feed sweet, and warm. Two quarts of grain, plus proper amount of skim milk, equals in food value one pound of butterfat. Feed skim milk of 12 pounds up to two months, then increase to 15 to 16 pounds. After six months increase up to 20 pounds. Feed the calves grain, with a small amount of bran, when they are quite young. A calf is able to grind hard feed when four to six weeks of age. Then calves are about two or three weeks of age, give them all the roughage they will eat—good timothy, clover or alfalfa. When they reach the age of four months give them plenty of roughage.

Avoid sudden changes of diet. Give a plenty of water and salt; warm, well-ventilated quarters, plenty of chafe, and not too much grain. Cut milk ration if other foods are plentiful after six months of age. Discontinue after four months of age, gradually accustom animal to the diet—a few hours at a time in the morning—and so avoid scours. Keep feed scrupulously clean. Scald daily and invert in the sun.

Flies and How to Prevent Them

Do you know that the fly is the deadliest little thing to cause big trouble that there is? Do you know that fly prevention is not only possible but easily done, if a few simple rules are followed?

Flies like to breed in filth, and the more undisturbed filth around the more flies there will be; and so get busy this spring and do more thinking on fly prevention.

Remove manure pile immediately, and most prolific breeding place. Manure is horse manure. But fly will breed on any decaying animal or vegetable matter. So eliminate manure pile by immediate hauling to field, or have a covered pit or cesspool where the manure can be dumped from the barn daily. If this is impossible, try spraying with a small amount of kerosene.

Provide proper privy screens to all openings, screen the house and the barn. Do not allow decaying vegetable or animal matter to lay around. Rub oil on all stagnant ponds.

Do not fly carry most any kind of filth, and he likes the food on your hands and out houses. He travels far and forth, taking with him the germs of this filth, but what is more dangerous, all the germs that are there.

Do not do everything possible to prevent fly breeding and see if we can live not only more safely, but at the same time more comfort.

Do not do everything possible to prevent fly breeding and see if we can live not only more safely, but at the same time more comfort.

Disease-Free Foundation Herds

The importance of procuring disease-free animals for foundation herds in a new country cannot be over-estimated.

This is a new country and because it has not been contaminated and is healthy, and may continue as long as man exercises foresight and care in settling and devel-

oping it. But forethought and care will not be exercised if those engaged in this work are ignorant of the importance of the right kind of knowledge. This knowledge should be forcefully impressed upon them.

When one reviews the enormous monetary cost of such scourges as bovine tuberculosis, hog cholera, contagious abortion, and other contagious and infectious diseases of live stock in the older and more densely settled areas of the country, and the consequent retarding of live stock development, too much consideration to procuring healthy animals can hardly be given.

In this comparatively new country foundation herds are being laid everywhere. Because a dairy cow, for instance, appeals to you as an ideal animal, and the price is right, and you just feel it is a bargain, do a little more investigating before investing. See that the cow comes from a tubercular-free herd, has been properly tested and declared free from tuberculosis, and don't be afraid of asking for advice. It is astonishing how much good sound advice can be obtained, if you only go to the right parties for it, and if you, yourself, are in the mood to accept it and be benefited by it. Consult your county agent, experiment stations, state authorities, and agricultural papers, and profit by others' experience.

Although the purchase of healthy animals for foundation is of prime importance, another step, just as far reaching and of tremendous individual interest, is the proper quarantining and segregation of sick animals on the farm.

Efficient quarantining depends upon each individual, not on state or county officials who promptly verifies the report and placards the premises. Their duties then, more or less, cease, unless reports show that their rules and quarantine notices have been, or are being, violated. So you see the responsibility for the enforcement of quarantine rules rests with us as individuals.

If you hear that your neighbor has some sickness or disease among his stock, don't go over and examine these animals, tramp around their quarters, and possibly on the way home stop in and call on another neighbor to discuss with him what you have just seen, and then go out and take a look at his stock. Don't go home and take a look at your own stock to see if the symptoms you have just seen are visible in your own herd. You may not find anything wrong with your own stock at the time. Perhaps in a few days your animals are sick and act exactly the same as your neighbor's. Probably you say it is your luck, when chances may be ten to one that you brought the infection into your own flocks yourself, either on your shoes, clothes, or in some manner.

So when you or your neighbor has the misfortune of having an outbreak of some disease among your live stock, see that quarantine is properly established. See that not only your family, which includes the dog, but the neighbors do not violate any of its rules by coming to see your herds.

It is bad enough to have your own animals sick but it is a great deal worse to be the cause, although innocent of intention, of spreading the trouble to your neighbor. Just remember that the result is the same whether hog cholera infection, for instance, is carried by you to your neighbor, or whether he does the carrying himself.

Promptly burn or bury all carcasses of animals that have died. Don't leave around for dogs, water, air, birds, or insects, to spread to adjoining herds.

If you are hauling your milk to a creamery or cheese factory, and the by-products are taken for farm feed, see that the creamery or cheese factory man has a proper pasteurizing factory man, has a proper pasteurizing outfit, and that he properly uses it. The spreading of bovine tuberculosis has been definitely proved to come from infected by-products of milk. It is a State law in Wisconsin, that all by-products must be pasteurized before returning to the patron; so be a law observing citizen, and see that the rest of the community is also.



H. H. BRYANT, D.V.M.

Farm and Small Town Wells

Do you know whether your well is contaminated by the outhouse? Try this and find out.

Pour a quart of kerosene in the privy vault, and watch the well water for signs of oil.

Advantages of Winter Milk Production

Now is the time to breed for winter milk production, and although this method has its weak points, still I believe it will make more money for the business farmer than the more common practice of making milk from grass.

The advantages are many. Lets take them up briefly. In the first place, you not only have bigger milk yield when the prices are the highest, due to a limited supply, but you have the biggest yield of milk, high in cheese and butter yielding qualities, which you don't get in milk, produced from grass.

Then, again, you have more of that almost priceless article "time" to give proper attention to the dairy cow without which she never fully responds. Your dairy herd on a winter milk producing diet will come through the winter in a better physical condition than on just ordinary winter food. You have the time to raise your promising calves instead of "weaning" them, as one is strongly tempted to do. During the rush of the spring and summer months, the additional fertilizing value of manure from a highly fed herd is another distinct advantage. Then you also miss the losses which result from "fly time" in curtailing milk production, which the grass milk producer knows so well.

Above all things, join a cow-testing association, if you have one in your community, and if you haven't, get in touch with your county agent and organize one.

Put farming on a better business basis by installing a system of book-keeping or in other words, using a slang expression, "know where you're at."

Meat Animals in Combinations

The keeping of cattle and of swine appear to be almost inseparable operations. This fact is being brought out in the returns of the "Better Sires—Better Stock" crusade of the agricultural colleges, the United States Department of Agriculture, and co-operating agencies. This general practice

has long been known, but much more definite information is being gathered, and the purpose is to extend it to such an extent as to determine the relationships among all meat animals.

If nearly every man who keeps cattle also keeps hogs, and if nearly every man who keeps hogs also keeps cattle, the inevitable conclusion is that the combination pays, especially when purebred sires are used. But it remains to be determined what are the most common and the best paying proportions. The same thing applies also to combinations of cattle and sheep, or swine and sheep, or cattle and sheep and swine. One benefit of the work will be that it will enable the man of small personal experience to avail himself of the wide experience of a great number of men in working out the combinations of meat animals that he will carry on his farm.

Muddy Barnyards Spread Disease

The season of muddy barnyards is here. Perhaps it will be next to impossible to do very much toward draining them or hastening the drying out process. On the other hand, now is the time to study the problem of drainage and make plans for permanent improvement before another spring rolls around.

At this season we can study the course of natural drainage to the best advantage. If there is any tendency at all toward natural drainage, one can readily see how it can be improved either by deepening the open ditches already existing, or possibly by laying underground tile lines, with surface manholes opening into them for collection of the surface water before the frost has left the ground. In other locations, where the barnyards are extremely level, paving a part of the ground may be the only remedy.

At any rate, it is not profitable to allow cattle and hogs to drag themselves through mud belly deep for a month to six weeks every spring. Filthy barnyards are one of the most common causes of an outbreak and spread of foot-rot in cattle and cholera in hogs.—W. H. Peters of Minnesota College of Agriculture.

It is fairly easy to upset a county board, a state legislature, or an entire government; it's blamed side harder to build them up again. Changes better be made slowly, and with a lot of careful thought.

CLOVERLAND MAGAZINE

Agricultural Education and Service

By RAYMOND A. PEARSON

President Iowa State College

WE LIKE to think of the progress that has been made in the science of agriculture. It is wonderful. We all admit it. We boast of it. The chief duty of the farmer is to feed the people. The American farmer always has performed this duty. The supply of food has been liberal. We have excelled in variety and quantity of production. We have practically disregarded cost.

A vast amount of information has been acquired. The soils and the plants and animals have been forced to give up many of their secrets. Thoughtful farmers are responsible for gathering much of this knowledge. Hindrances and pests which would have appeared countless times and have been overcome, sometimes. Their appearance and their disappearance are not as startling as a fire in the night, but far more interesting when all the facts are known. An enemy to food crops finds its way into an unsuspecting neighborhood, gains a foothold and progresses undiscovered until considerable damage is done. Expert advice is secured. The people are shown how to conquer the enemy. This is the story about the principal farm product in a great many neighborhoods throughout our country. And again I give credit to the intelligence of the agricultural people through whose effort success is achieved.

Look for a moment at a few exhibits which show agricultural advancement. A prize ear of corn beside the great ancestor from which it was derived—about as much resemblance as between a fine automobile and an ox-cart. And think of a prize yield of corn—over 100 bushels per acre as compared with what we used to be able to produce with all conditions the most favorable known.

Or, consider a modern up-to-date dairy cow, standing beside the cow of the ancient variety. I have great respect for the cow that has come down through the decades. We know how she traveled with the early settlers and how she stayed by them and sometimes kept them alive when every other support failed. Milk, butter, cheese, ice cream, meat, leather, glue, hair, fertilizer and canceled mortgages are to her everlasting credit, but she can't compare with her well-dressed great granddaughter who graces so many barns today. See this quartet: Tilly Alcartra, Murne Cowan, Plain Mary and Lily of Willowmoor, representing the four leading dairy breeds and with yearly fat records respectively of 1-058.42, 1,098.18, 1,040.07 and 955.56 pounds. Here is a triumph in agriculture that compares well with the development of the sixty mile an hour express train from Stevenson's crude outfit of ninety-three years ago.

Or consider the modern farmer in comparison with his great-grandfather. I have in mind my own relations as well as yours and I would do them no disrespect. They were sterling stuff but if they could enter farming today they would have to learn the business over again. This modern farmer who produces both crops and animals must understand a wide range of subjects, that are becoming more difficult every year: Fertility, with its special questions on nitrate, lime, phosphorus, clay, subsoil and cover crops and many other topics. Feeding with special questions on protein, palatability, vitamins, grains, mill products,



Acid Phosphate Was Used to the Right—None to the Left. A Good Illustration of Agricultural Education.

roughage, silage, alfalfa, new crops and relative costs. Diseases of animals and plants with reference to bacteria, fungi, methods of control, and immunity. Machinery with questions on efficiency, durability, fuel, hazards, and replacements. Some of the biggest subjects that this farmer must understand have not been or hinted at. The list could be extended to a thousand items.

All people who are informed now

service—especially in those places where the danger to life was the greatest, and especially in positions requiring the best technical knowledge our country could afford. The military training given in these institutions as required in the national law, ever since they were established and sometimes taken reluctantly by students who thought their time could be spent to better advantage otherwise—this military training was re-



A Clearly Marked Line Across This Field of Sugar Beets Shows Where Fertilizer Was Used. Education Paid Big Returns on Part of This Field

recognize the important relations between the land-grant colleges of the country and agricultural progress. If these colleges had a motto it well could be Education and Service. They were born during the Civil War. Their greatest service was rendered during the World War, when many thousand of their students, faculty members and former students served in all kinds of positions in the military and naval

service for the "over night" production of many a good soldier and officer. It ought to be a convincing lesson to the country at this time when our future military policy is being determined.

Besides military instruction the land-grant institutions are required to give instruction in agriculture and engineering. In these lines also well-trained people performed a service

throughout the war that was of inestimable value.

In the early days these land-grant institutions were not popular. Many people thought it useless to provide education especially for the industrial classes and along practical lines. A congressman said he believed the proposition to do something along educational lines for farmers was inclusive if not fraudulent. He said agriculture needs no aid, it can take care of itself. Imagine a congressman with a rural constituency making such a statement now. Or imagine a legislator from an urban district taking that way. City people are coming to realize what agricultural education means for their three meals per day. Some of the strongest supporters of agricultural colleges now are the heads of city industries who fear food shortage.

In the early days agricultural education had to contend also against opposition from the old-school educators who could see no education value in a butter making laboratory or in a field of grain. In the great state universities of our country these prejudices now are conspicuous, if at all, for their absence. Students of agriculture are universally respected, less their own personal qualities undeserving.

Agricultural education has developed along three, more or less distinct lines—educational training at college where students gather in large numbers for longer or shorter courses as indicated by their needs or the circumstances; extension work

throughout the whole state and the many which many thousands of farmers, home makers and most countless boys and girls receive instruction that related directly to their work; and extension station or research work, means of which old problems are being solved.

It is safe to say that any one of these three lines of work is worth to the state and nation more than the cost of three. It is safe to say more than that.

Some items, especially are conspicuous from the standpoint of direct money value. We would attempt to estimate what the teachings of the dairy department of the University of Wisconsin meant in larger money returns to the state. Your 2,500 cheese factories and creameries and most of the rest of the state have benefited.

In a recent year there was a shortage of seed corn throughout the country because a crop had failed to mature. The extension workers performed a remarkable service in going to locate odd lots of seed corn and distribute that which was good, and this is generally acknowledged to have had a tremendous effect on the succeeding corn crop. The discovery of hog cholera serum saved hogs by the million. Here are only three of many items that have been mentioned and any one of them has produced an immediate and direct financial return far in excess of the whole cost of all three branches of agricultural college work in the district concerned.

With all this evidence in fact, land grant institutions, our service many states is badly handicapped in some states it is actually impeded because of lack of support. The



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EL PASO

(Continued from page 14)

showed the caliber of many members of land grant college staffs with the result that these men are now in demand for commercial positions at salaries from two to four times as large as the colleges have been paying. The result is an abnormally large number of resignations from the colleges. If it were not for loyalty to the work and their love of it, the rest of the good teachers also would resign because practically every one of them has opportunity now to earn more outside of colleges than they are getting. Some of these loyal teachers would be willing to pay for the privilege of teaching. We are now depending too much on this splendid spirit. It is not a situation which attracts young men and women into the teaching profession. Anyone who has to receive the too frequent resignations and who is in touch with the difficulty of finding satisfactory teachers to fill the vacancies will have some sympathy with the suggestion that if present conditions long continue, the genuine professions will soon become extinct.

Appropriations in the name of agriculture are large but there is a good deal of camouflage about these appropriations. For example—Congress appropriated about \$30,000,000 in the annual agricultural appropriation bill but much of this money is appropriated in the interest of the public generally rather than in the interest of the farmer. To illustrate—the motive behind the meat inspection law and its enforcement is to prevent unwholesome meat from finding its way to the tables of the consumers. The consumers most benefitted by this particular law are the ones living in the larger cities where most of the meat entering interstate commerce is used. The chief argument for a pure food law and its enforcement is that the people who are farthest removed

from the source of food supply should be protected against adulteration and other frauds. A chief argument for maintaining the weather service is that this is in the interest of shipping. But all these appropriations and many other of similar nature, are charges to agriculture. If the government should decide to license the meat packers and collect a large sum from them through the Department of Agriculture, they would probably add an item to the agricultural appropriation bill to cover the cost of collecting these taxes and that item would be understood popularly as another generous donation to the farming interests from the taxpayers' pockets. A similar explanation of a large part of state funds appropriated in the name of agriculture may be made. Government and state appropriations for agriculture are comparable with a generous allowance made by a business man to his wife, who was supposed to use the monthly payments for her own personal expenses. But this generous business man directed the tradesmen and his tailor and his clubs to send their bills to his wife. When she had paid these bills she did not have much left for herself.

Another item in connection with appropriations for the development of agriculture and which should be better understood by the public generally is that a prosperous agriculture means a prosperous country. When farmers prosper, all industries are prosperous.

The outlook for agriculture if properly supported is bright. Our duty will continue to be to feed the people. Many factors relating to this great service are so much in doubt that no one is competent to speak with assurance as to just what will be accomplished in the immediate or distant future. Three very important factors, however, easily may be controlled and if these are directed in the right way the future of agricul-

ture and the future of all people who have to eat to live will be far brighter than if these factors are neglected. These are greater economy in production, more research especially into fundamental problems, and better business farming and in respect to our national agriculture.

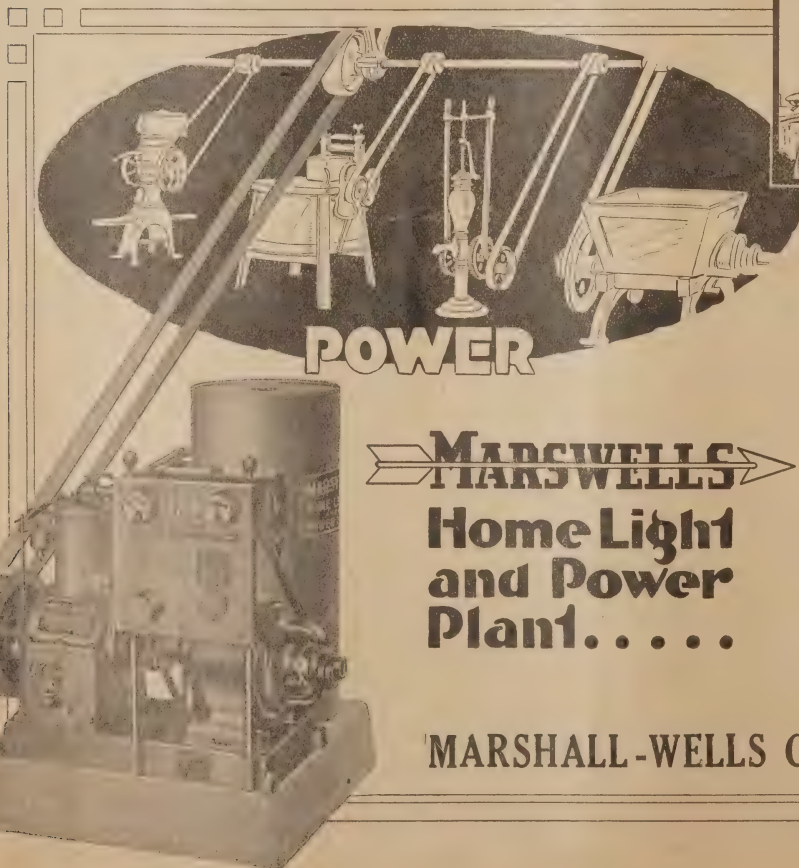
Our failure as a people to make use of information that is available and that would naturally reduce the cost of production is as much an economic crime as our failure to use the enormous water power of the country which now is running to waste.

Dr. Van Hise showed the needlessness of many of these losses and the enormous values which our country lost through them. If the average acre in corn could and should economically produce an additional twenty bushels, and if the average cow could and should economically produce an extra twenty pounds of butter fat, per year, then our failure to secure these increases is causing us a stupendous loss. If our homes could and should be planned somewhat differently so work in the homes would be made brighter and life there would be more pleasant and contribute to greater efficiency, then our neglect of these homes costs us another stupendous loss. These are only illustrations to emphasize the importance of continuing and increasing the educational work in these institutions of service.

In recent years it has been particularly difficult to induce law makers to recognize the importance of more liberal support for agricultural research work. We like to think that we have solved many of the great agricultural problems, but the knowledge that is concealed far exceeds that which has been revealed. Without doubt we are doing much work and we are suffering enormous losses, both of which will be reduced or eliminated when we understand better what we generally refer

to as fundamentals. The relation between nutrition and disease, the elaboration of the nitemines, the production of available phosphorus, the maintenance of the nitrogen supply, and the calcium balance of dairy cattle are a few of the questions that scientists are trying to solve. Such problems become an inspiring challenge to devoted workers. Can the state afford to let such men serve without proper compensations or, still worse, let them enter other vocations.

One advantage of the income tax, the requirement it has placed on so good people to keep business records. Thus, for the first time, some farmers and some business men and some manufacturers have learned what it cost to produce and that certain operations were being conducted at an actual loss. There is a strong movement now to put agriculture on a more business like basis, especially through the careful keeping of farm accounts. But one of the greatest needs of agriculture is a better system of records in reference to national production and in respect to some foods, world production. The Bureau of Crop Estimates of the Federal Department of Agriculture publishes useful statistical material. However this is not in sufficient detail nor is it published promptly enough to be of greatest value to the farmers who are interested. The live stock interest of the country, representing an investment of \$10,000,000,000, are conducted with very little exact information as to present conditions and future needs. The Secretary of Agriculture points out that the enlargement of the work of the Bureau of Crop Estimates would be of interest and value, first, to the farmers who would more carefully gauge their production in accordance with the needs. County agents would be in better position to give advice. Manufacturers and busi-



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ness men would know better what to provide in the way of equipment. Banks would know more exactly what they could do toward financing farm operations. The transportation companies would know more accurately about the number of cars desired for shipments.

With such information as indicated and additional information concerning the needs of other countries to which his country exports, the farmers of our country would know much better how to readjust agriculture in this after the war period. During the war our dairy exports increased from 25,000,000 pounds to 781,000,000 pounds per year, meat and meat products exports increased from about 1,300,000,000 pounds to 3,300,000,000 pounds, the increase representing about 10 per cent of the annual production. State and federal action which will provide definite information to farmers such as is available in other industries and such as will enable more intelligent plans of operations is one of the great needs of the time and is one factor which will help to reduce cost of production, cut down exorbitant middlemen's profits, and materially contribute to a decrease of the cost of living.

Giving the New Pig a Real Chance

ABOUT one-third of the pig crop is lost before weaning time. The rest of a litter up to weaning time varies but little with the number of pigs. It is difficult to make pigs pay when the litters are small; in fact, small litters cause greater loss than most of us think. A man may be able to feed a weaned pig profitably but lose out because his sows raise so few pigs. Rather than this, a pig well started and well weaned is fairly well grown. The following by John B. Rice of the Agricultural Experiment Station, Urbana, Ill., may be kept in mind in preventing this loss and in giving the pig a chance which he deserves:

Disinfect and whitewash the floor and walls of the farrowing pen previous to birth.

Give a little extra care and attention during the first two weeks. Increase the sow's ration gradually during the first ten days. Overfeeding the young pig will cause scours.

Feed the sow a ration which is properly supplemented and of sufficient bulk.

Keep the beds dry and free from drafts.

Make the young pig exercise every day to help in preventing thumps.

Treat sore mouth infection upon first appearance rather than after it has taken its course.

Teach the pig to eat before weaning.

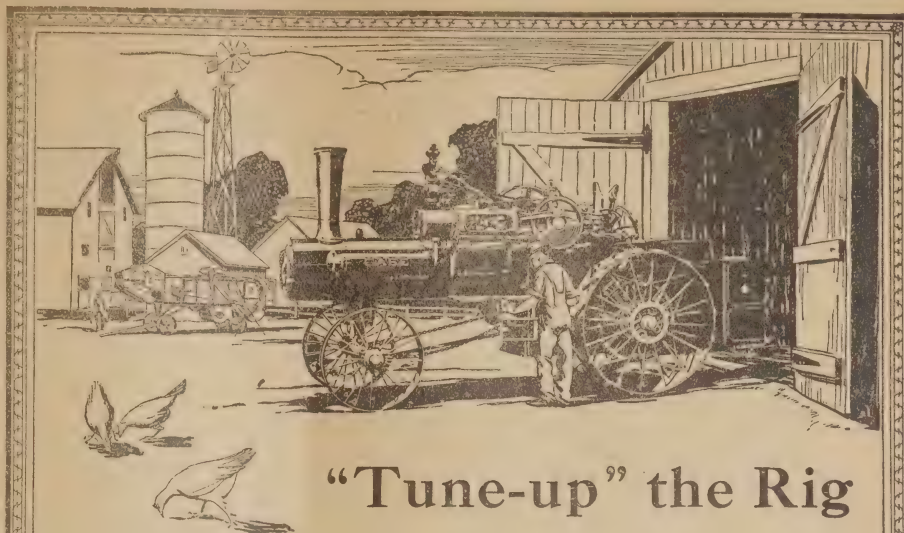
Give the pig good feed and care at weaning time when he is learning to make his own way.

Hogs Should Have First Class Pasture

PLEA for real hog pastures, not simply hog yards, is made by Ernest Henry of Dover, Minn., a well known institute leader for the agricultural extension division of the Minnesota College of Agriculture. Mr. Henry believes in giving the hog a goodly modicum at least of the treatment and attention accorded other farm animals. He says:

The most profitable hog pasture is a pasture so large that the hogs do not eat one-half of it. If it be alfalfa or clover, what remains uneaten at weaning time can be cut and cured into hay. An acre of alfalfa or clover will make as much pork, so far as it can be used, as an acre of corn. The one half of the farm and requires very little labor; the other reduces farm fertility and requires much high-priced labor.

Good pastures not only make cheap pork, but keep the hogs in much better health and reduce the danger of hog cholera to the minimum. In these days a hog cannot be grown on grain alone and at the same time make money for his owner."



"Tune-up" the Rig

ONLY a few weeks remain before threshing season will be here with a rush. Be sure you are ready. Get your Case "Steamer" out and go over it.

See that the boiler is thoroughly clean inside. Polish piston rod and valve stem. Look for lost motion at both ends of connecting rod, and adjust the brasses if necessary. Re-pack the pump and possibly the governor stem. Clean oil holes and grease cups so that lubricant will pass freely to all bearings. Be sure that leads to water-column are clear. We suggest that you have on hand a supply of water glasses, with proper gaskets. The safety valve is probably all right, but be sure it "pops" when it should. Scrape out exhaust nozzle, giving the steam a clear passage, directly up the stack. Replace worn clutch shoes; also repaint boiler and stack.

Overhaul the separator belting and re-lace or re-place where needed. Wash out every bearing with kerosene and see that oil holes are open. Replace worn teeth in cylinder and concave, and look for harmful endplay in cylinder. 1-64 inch is right. Examine every box and bearing and take up or re-babbitt where needed. Tighten loose nuts and replace lost bolts.

Be sure you have the supplies and tools you will need. It is well to have some spare parts on hand to guard against possible delays. Check up your stock of parts with the list suggested in your "Case Thresher Manual," and order what you lack. If you have no copy of our "Thresher Manual," you should have one, and we will send one on request.

Remember that time is money to the thresherman, and right now is the time to save time.



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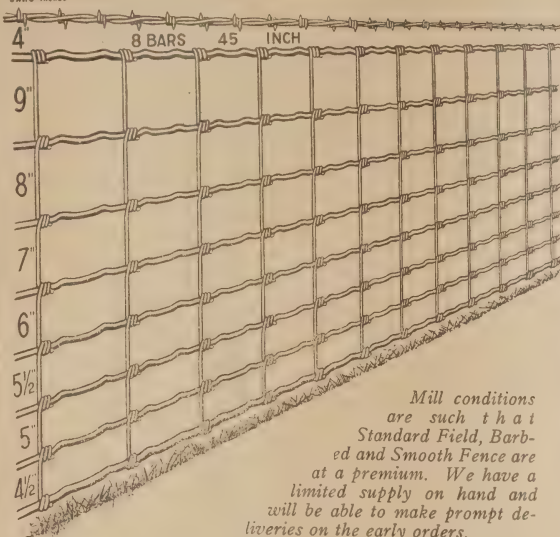
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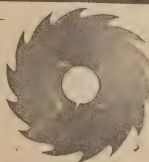
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The Agricultural Outlook

By W. E. LOCKWOOD

THINKING men and women of this day and age have come to realize that agriculture is the base upon which all the successful enterprises are laid. And in choosing a topic at this time the one that appeals to us the most, as students of agriculture, is the "Agricultural Outlook." This is a subject that is of vital importance to everyone, whether or not, actually engaged in farming; the handling or distribution of food products; or in the manufacture of articles for human consumption: for the reason that it has a direct bearing upon the success and welfare of the nation as well as upon the people of its separate communities. And it has been found that those things which may affect the farmer in turn affect the people as a whole, and anything that may be done to improve the agricultural conditions of a nation will be of benefit to the whole country.

If one were to study the problems that confront the American farmer today, he would soon come to realize that there is great need of thought and work to be done on the question of economics. It is true that the average farm of today does not, as a rule constitute a large enough economic unit to utilize to the full modern development of organization and scientific knowledge. However, capital is not the only factor which may be deficient, for in many cases the standard of management of the operator is so low, his business organization so imperfect that he relies for his profits upon cheap farming methods over a large area. What is always needed in any successful enterprise is economy of management, economy of labor and the use of machinery, and economy in buying and selling. All of these things are just as essential to the success of the individual farmer as they are to the business man or manufacturer. We have heard a great deal of late years about the advantages of extensive cultivation of the small farm. However, the facts and figures show that the independence of the small holder of today, is too often purchased dearly at the price of excessive labor and by the sweat of his family. It is only natural to assume, that the farmer of the future will of necessity have to operate the proper sized farming unit, if he expects to compete on the market with those who will take advantage of this fact.

The rapid strides that agriculture is making at the present time, and which will be made even faster in the future may be attributed largely to the extensive educational propaganda now carried on. Since the first grant of congress in 1839 of \$1,000 to the furtherance of agriculture in America, up to its present day expenditures of \$30,000,000 annually for this work, the good done in this direction can not even be estimated. One of the results most beneficial to the nation from these expenditures of the people's money, was that it was instilled upon the minds of men that farming is not a mystery open only to those born within the craft but that it is just as susceptible to exact knowledge and hard business treatment as any other enterprise. The character of the literature now put out for general distribution by United States Department of Agriculture together with that by the several state experiment stations is not the kind that is calculated to be of interest only to men who have had the advantages of a school training but it is written in such a way as to be of practical service to the average farmer. And it is through these publications that the most good will be done, in an educational way, to the farming world; for in comparison to the few who have the privilege of attending an agricultural school there are hundreds. Yes, thousands who are enabled to get practical help in this way.

The other great factor in the development of better farming in this country is the agricultural school, and especially our state universities. However there is much that will have to be done towards the improvement of the present common school systems. In the first place, the rural school must be made to equal the city school. It must also teach the first principles of agriculture, floriculture, horticulture, and other phases of country life which are of such importance to the true farmer. Not only is it essential that agriculture be taught in the country schools, but an opportunity should also be given to the youths of the city to become better acquainted with the fundamentals of successful farming. In the case of our high schools it is not to be pretended that young men can be turned out of our universities fully equipped for the business of managing or developing large estates. Real education comes after the university. These young men can and are being given the broad principles of action. They are made acquainted with the sources of information and are awakened to the possibilities of applying exact methods to practical life.

During the last half century the movement in the direction of education in agriculture has been progressing, but it has not covered all of the activities of the modern farmer. I have thought him how to produce, but it has taught him very little about selling what he has produced or about spending the money received to his best advantage. It is along these lines that co-operation has done its most good for the American farmer. Co-operation is not a theory any more to thousands of successful farmers and the most skeptical of whom, can now with safety advocate the continuance of this movement. There is, however, one factor that seems to be entering into farmers' organization at the present time, that is a menace to their stability and which will tend to defeat the very purpose of the formation. I refer, to the present tendency on the part of certain, so-called farmers' co-operative associations; to plunge themselves into politics for the purpose of obtaining class legislation and class distinction. No country can claim for itself the honor of being the leading democracy of the world, that will tolerate the rule of its citizens by any certain nonrepresentative class. It makes no difference whether the class be made up of laborers, capitalists, or farmers. The very ideals for which this country stands for would be defeated. We have had the opportunity of watching the disastrous effects of class rule in the past resulting in the overthrow of the Roman Empire, the downfall of Germany, and at the present time Russia is a striking example of class rule.

It would be a much pleasanter task to describe the beauties of nature and to tell about country scenes, than to pick out the weak spots in the organization of country life and attempt to present some explanation for the presence of these unsatisfactory conditions and suggest methods of improving them. There are many beautiful things about country life. No one will deny that, but in spite of their presence, the country has not been able to compete with the city as the two exist at the present time. This must mean that the city has certain advantages over the country, at least seems to have. Life in the country is not what it should be, it is not what it can be made to be. Farming is to be merely a means of man's obtaining a living and when he is to be shut off from most of the worth while activities of this world then there is something radically wrong with our ideals and our conception of what a true citizen should be. But, on the other hand, if there is anything that can be done to make

arming a profitable business; if it is to continue to be the most healthful business known to man; and if at the same time life in the country can be made worth living in the truest sense of the word; then surely that effort will have been well repaid.

It has rightly been said of the ancient agricultural writings, that more can be found in them to approve of man than to disapprove of. And the characteristics of the early Roman methods of farm management, viewed in the light of the present state of the art in America, were thoroughness and patience. How true it is today that upon these two fundamentals depend the development of this great art. For of all the vocations of this world the business of agriculture has proven itself to be the most conservative, and the nearest to God and to nature.

Feed and Care of Brood Sow and Litter

PERHAPS the most important essential to real success in the hog game is the proper feed, care and management of the brood sow. Unless she is given the proper attention and thrifty litters cannot be expected. The feed and care from breeding time to the weaning of the pigs is of especial importance. It is during this important stage of their development that Mrs. Hog will do all in her power to make the "little future porkers" strong and thrifty, if we but give her a chance by seeing that she gets:

The right kind of feed—especially plenty of protein and mineral matter.

The right amount of feed—not too much or she will get too fat.

Plenty of exercise.

Comfortable quarters—dry, ventilated, well lighted.

No sudden changes of feed.

No rough treatment.

Freedom from worms, lice and constipation.

Plenty of Protein and Mineral Matter

It is very important that during pregnancy and the suckling period we feed the sows plenty of protein-rich feeds such as skim milk, buttermilk, or tankage, and plenty of mineral matter which is contained in the above protein feeds and especially in the pasture crops.

All swine should be supplied with salt at all times. It is well to keep some such mineral mixture as the following constantly before hogs when on pasture:

100 lbs. ground charcoal.

100 lbs. ground limestone.

100 lbs. wood ashes.

50 lbs. salt.

20 lbs. sulphur.

This mixture will furnish additional salt which is necessary for bone-building and thrift and may not be supplied in sufficient quantity in some rations.

The following have proven to be good rations for pregnant sows in winter:

4 lbs. corn, fed on ear.

6 lbs. tankage.

Alfalfa or clover hay in rack.

96 lbs. ground barley.

4 lbs. tankage.

Alfalfa or clover hay in rack.

35 lbs. ground barley or corn.

30 lbs. ground oats.

30 lbs. middlings.

5 lbs. tankage.

Alfalfa or clover hay in rack.

70 lbs. ground barley or corn.

25 lbs. chopped alfalfa hay.

5 lbs. tankage.

The above mixtures may be fed either dry or in thick slop. There is, on the whole, no advantage in slop or dry feeding.

HIGH PRICED HORSE.

The highest price ever paid for a horse is \$285,000, the figure at which last Belmont of New York recently sold the thoroughbred stallion Tracery to Mr. S. J. Unze, Buenos Aires, Argentina. Tracery is a celebrated sire of race horses.



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Abortion in Sows

ABORTION in sows seems to be more prevalent than usual on Illinois farms this spring. The disease in sows is not as well understood as the same affection in cows and it is hard to cure or prevent absolutely. However, there are certain sanitary precautions which if taken, will tend to control the spread of the disease in a herd of sows.

An aborting sow should be promptly isolated; the aborted fetuses and the bedding in the pen should be burned; and the farrowing pen should be thoroughly cleaned and disinfected. It is well to keep all other animals away for several weeks from quarters which have housed such sows. A suitable disinfectant may be made by dissolving a pound of ordinary lye in forty gallons of water, or one of the standard coal tar dips may be used in sufficient strength to thoroughly disinfect the premises.

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A Large Silo Towered on the Hilltop. The Adjacent Building Is One of Several Hay Barns

Building an 11,000-Acre Ranch

(Continued from page 9)

boiling through the drifts, the sheer joy of living evident in their every antic.

"This is no argument against proper shelter and food for sheep, in the northern states," says Superintendent Scholtz, "but it indicates that sheep will tolerate, and thrive, in a lot of snow and cold, in the brush lands of Wisconsin, Michigan, and Minnesota."

The incident is at variance with the practice that has made an 11,000 acre ranch in the Chippewa Valley a success. The basis for that success has been careful planning, careful preliminary work, and constant provision for the comfort of the live stock handled there.

"The lost sheep," says Mr. Scholtz, "simply proves that live stock will live under some rather adverse conditions. Sheep apparently get along pretty well without much attention in this north country. However, it doesn't change our beliefs one bit—careful preparation, proper buildings, and plenty of feed, are the requirements for success with sheep in the cut-over country."

The ranch is now divided into five farm units. Each unit centers around a fully developed farm. On each farm is a group of buildings, which house Superintendent Scholtz and his men. This farm-unit division is proving highly satisfactory because it provides proper distribution of labor and machinery. Clearing operations are constantly carried out. Insofar as possible, power machinery is used, both in clearing, and in plowing and cultivating the fields. In clearing, brush is piled in windrows during the summer, and these windrows are burned in the spring. The brush area is then seeded to clover. It is "harrowed in" by sheep. Bands are allowed to tramp over it. About 1,000 acres will be thus brushed during the present summer, at a cost of about \$10 to \$13 per acre.

Now development is being extended beyond the ranch proper. For in-

stance, a pea canning factory is being erected at Holcombe, Wis., with a capacity of from 500 to 700 acres of peas as a beginning. This factory offers market for a cash crop to neighboring settlers—and peas have been known to pay as high as \$100 per acre. The pea vines are valuable as winter feed and average from one to one and one-half tons per acre. About 100 acres will be planted to peas on the ranch itself. This will encourage neighboring settlers to use the crop, and it is probable that the company will soon build sheep barns near the pea-canning factory, and will winter-feed sheep on pea vines at this point. Silos will be a part of this winter feeding station. Whatever pea vines the silos may be unable to accommodate, will be stacked. About 18 inches of wind around the edges of the stack spoils, but the balance remains in perfect condition.

Those who are operating this ranch have a vision that extends beyond its confines. They are engaging not merely in building up a profitable sheep venture, but also in building a country. They are encouraging settlement near the ranch, are providing work for settlers, and are preparing to send small bands of sheep to these settlers to be handled on shares.

They are giving some thought to social environment, and recognize the vital need for social life on the farm of a comparatively new country. They have constructed a modern school house on the ranch, both as an educational institution for farm children and a social center for farm families. This phase of the work on the ranch proper, undoubtedly needs, and will get, further attention. The task of carving 10,000 or more acres of tillable land out of a wilderness, has pretty well occupied the minds of the men behind the venture. So the nucleus of social activity, found both in the scho-



An Apple Orchard Helps Supply the Ranch Larder

house, and in the five farm centers, is susceptible of further development. Incidentally, the great ranch is providing ever increasing acreage which will, in time, be ready for more intensive use by small men, should the present owners feel inclined to part with any of it.

The effect of this ranching venture in the Chippewa Valley is widespread. Recently two Wyoming stock men visited the property. They became so enthusiastic that they immediately purchased 1,000 acres adjoining the big ranch. They recognized the need for discarding their western sheep ranging ideas, in favor of the farm plan on the ranch. They are now fol-

lowing similar methods in this same section.

The lesson in the ranch lies largely in the soundness of the fundamental plan; in recognition that a foundation must first be built, before a superstructure can be erected thereon; in the knowledge that shelter and food is more important than live stock, as the first effort of the sheep raiser. Only where shelter and food are adequate, has the time come for the flocks themselves. Thereafter, careful and experienced husbandry is necessary. The sheep will thrive if properly handled, and if properly housed and fed. The land must feed them, and this the land can only do if it has been properly prepared, by men, to do it.

The Importance of Treating Oats for Smut

By R. E. VAUGHAN

U. of W. Experiment Station

AT smut is common and wide spread. It is so common in fact that many farmers look upon it as a matter of no importance. This is especially true because the smutted plants are usually shorter than healthy plants and not very noticeable in living along the side of a field.

However, the loss is real and runs to millions of bushels every year. The truth of this statement asks the thrasher in the state. These men handle the grain and know that a cloud of dust from the machines is not so much dirt as it is the spores of the smut disease.

Losses in 1919 were not as heavy as several years owing largely to the more widespread use of formaldehyde treatment. Formaldehyde is a powerful chemical disinfectant. It is made from pure methyl alcohol which in turn, distilled from crude wood alcohol. The principal use of formaldehyde in plant industry is in treating seeds. About 1,000,000 pounds are used in the United States every year. It would be possible and profitable to utilize this use and increase the yield of grain from the same amount of seed used.

An oat kernel that carries a live smut spore on it takes up space in the seed, a bit of ground in the field, water and plant food, the same as a healthy kernel that is not infected. The difference is that an infected seed gives no grain in the head, only a black smutty mass of spores.

In these days of labor that is hard to get and keep, high priced land, and that is expensive, it is of the most importance to treat the seed to insure the crop against loss from smut. The water that is used to dilute formaldehyde provides for distributing the chemical over the seed where all the spores may be killed. The water also causes the seed to swell and begin the process of germination. For this reason fields sown with treated seed frequently show a more vigorous and uniform stand.

Treated seed is cheap. The cost should not exceed 2 cents a bushel for chemical and in these days there are very few things that can be purchased for 2 cents. The cost will vary with local conditions and the quantity of formaldehyde that is purchased at one time.

Formaldehyde treatment is not a cure-all for the many ills that oats are subject to; it can never take the place of a high yielding pedigree variety, cannot substitute for a thorough cleaning in a good fanning mill, and will not insure a good crop on poor soil. Furthermore, treated grain takes

up more space in the seeder and for this reason about three-fourths bushel more to the acre should be sown than where dry untreated grain is used. Damp treated grain should be kept away from frost or the ability to germinate will be destroyed.

The use of a smut treating machine has been very successful among Wisconsin farmers. There are several machines on the market but the Cleveland machine made in Minneapolis is probably more widely used than any other. In this machine the formaldehyde solution, one pint to about thirty-five gallons of water, is put in the pan at the bottom, the grain is dumped into a hopper that has a sloping bottom which ends in the solution pan. On the under side of the hopper is a worm elevator which takes the grain through the solution and out into a sack. The treated grain in the sacks should be covered with a blanket for a couple of hours after treatment; then the sacks should be untied and set up singly around the barn floor or wagon. If gunny sacks are used there is no need to empty the grain to dry it out. When tight woven grain sacks are used it may be necessary to empty the grain onto a barn floor or canvas to dry it out. Two men can handle about fifty bushels an hour with one of these machines, and have the grain all sacked ready to sow the next day.

The dipping or soaking method is probably the most efficient method that can be used. In this the solution is made up at the rate of one pint or pound of formaldehyde in about thirty-five gallons of water in a barrel or tank. The container should be half filled with solution; then take the grain in loosely filled gunny sacks and soak in the solution for five minutes. Drain on boards over the barrel and pile the grain on a clean floor or canvas where it can be covered with a blanket or canvas for two hours. This covering is important as it allows the formaldehyde to kill the spores. When the two hours is passed remove the cover, spread the grain out a few inches deep and shovel or rake it over occasionally so it will dry.

The sprinkling method of applying formaldehyde has been widely used, but there is usually some smut spores that are not killed in this treatment. Mix up the solution the same as in the other methods. Put it in an ordinary garden sprinkling can and apply as the grain is being shoveled over from one pile to another. Use about a gallon to a bushel. After sprinkling cover with a canvas or blankets and handle as in the dipping method.

STOVER IN SILAGE

One of the greatest advantages of silage is that it preserves the hard, nutritious stalks of the corn in a succulent, appetizing condition. The value of such a ration in maintaining the health of milk in dairy cows during the winter is well known, says Alvin R. B. chief in nutrition at Iowa State College, in the Iowa Agriculturist.

From the standpoint of economy the silage to be considered here is the entire plant is utilized for instead of being only partially con-

sumed or left in the field to be burned or plowed under. Cattle fed dry corn stover will reject many of the hard stalks. These same stalks, if in the form of silage, would be eaten up clean and relished by the cattle. Not only would the waste be prevented, but the stover in the form of silage is more digestible than in the dry condition. And there is considerable real nutritive value in corn stalks, at least for cattle, which require considerable amounts of bulky and fibrous feeds.



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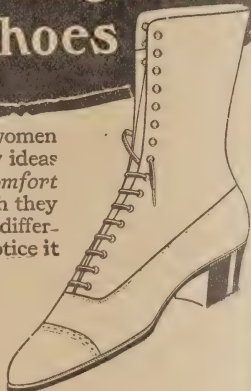
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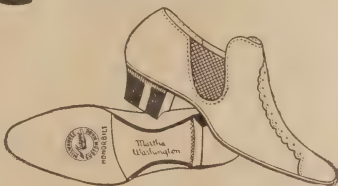
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This shoe has been widely imitated. Look for the name and trade-mark on the sole or on label in top.

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OATS SMUT DAMAGE

In 1918 the average loss from oats smut in Ohio was over 7 per cent. On the basis of an average yield of sixty bushels, this means a loss of over four bushels to the acre, according to experts at the Ohio experiment station. On many farms the destruction from these widely spread diseases is much higher than this.

All losses from oats smut may be eliminated by seed treatment. The dry formaldehyde method is recommended. Fifty bushels of oats can be treated in half an hour by two men at a cost, besides the labor, of about 5 cents for each acre sown. Since the grain is not made wet and does not swell, it can be sown immediately. Or, if it is thoroughly aired first, it may be sacked and

kept for several weeks before being sown.

Last year increased yields of from two to five bushels per acre were reported from different parts of the state, due to the control of smut. In some fields hardly a smutted head could be found in the part sown with treated seed, while in the parts of the same fields sown with untreated seed as high as 20 per cent of the heads were smutted.

\$10,000 FOR PIG CLUBS

Illinois breeders of Duroc-Jersey swine have subscribed \$10,000 in cash which will be spent in boys' and girls' pig club work to push the breed in that state.

Grass, the Base of Agriculture

By EUGENE H. GRUBB

MR. EUGENE H. GRUBB is a "grass expert" of Carbondale, Colorado, and his advice is much sought by livestock farmers throughout the country. His services have been most valuable in the Corn Belt states, and in other districts where pasture requires scientific culture if it is to show profit in the dairy, beef, or mutton. Recently he made a survey of a large feed lot and pasture operation in Illinois, and in closing his suggestions for measures to be adopted in providing adequate pasture, wrote the following essay on grass, which was published in Clay, Robinson & Company's Livestock Report.

The survey was applicable to the land surveyed, but what Mr. Grubb has to say on grass and clover is applicable to any section of the country, even in the northern states where clover and grasses are indigenous, and little or no difficulty is encountered in making ideal pasture. But even in the north country pastures must be preserved and improved, and every dairyman and stockman content to "just let the grass and clover grow," will find in this article information that will be worth keeping in mind.

FIRST, success of agriculture depends on cheapening production, a rule equally applicable to other spheres.

Second, grass is the cheapest food for live stock; third, a turf composed of the roots of grasses is the cheapest manure and fertilizer; fourth, the roots of plants are the deepest and best cultivators of the soil warmers and drainers. Blue grass and excellent plant provides merely an unbalanced ration. It is shallow-rooted, subject to drouth, even a dry spell lessening its growth and production. Pastures composing a variety of foods, especially the legumes or nitrogenous plants, are essential to maximum grazing as well as furnishing the protein essential to a balanced ration. This is understood by dry-lot feeders and is equally applicable to pastoral conditions.

All grasses have different maturity seasons; the Brome grass and orchard grass are nearly all deep rooted; the Brome grasses are drouth-resistant, palatable and have high food value and are one of the early sorts.

All pastures should contain a percentage of sweet clover, regarded in the old world as remotely as 3,000 years ago as a valuable soil builder. Animals may graze freely on it as it is the only clover that does not bloat, has equal in food value to alfalfa, is a biennial plant.

Unfortunately present day practice fails to recognize much knowledge concerning the grasses our forefathers utilized to advantage. Chicory is used in France and Great Britain and recognized as one of the strongest, deep-rooted plants for forage or grazing. It has a tonic influence, yielding six to seven tons of cured hay when cultivated alone. English blue grass or meadow fescue is one of the most valuable grasses, in Europe, deep-rooted, strong-growing, large yield something like orchard grass, and makes a strong turf that stands stamping. No pasture should be considered complete without it. I have an aversion to Alsike, despite the fact that it grows abundantly in low, heavy soils. When seed forms it becomes pungent, woody and bitter, animals grazing on it only when starved. In Great Britain it is mown to get a new growth before reaching this stage which is impracticable with us.

Cow grass or late flowering perennial red clover comes into its best grazing about four weeks later than our common red clover, or about Aug. 1, at a time when drouth usually impairs our pastures. Italian giant white clover is more valuable than our little Dutch clover. More luxuriant and often grows to the height of 20 to 24 inches. Domestic animals of all kinds as well as poultry relish it more than any plant I know of. It is also an effective gatherer of free nitrogen from the air to store in the soil, materially stimulating the growth of the non-leguminous pasture grasses.

Pasture cultivation is of paramount importance, aerating the soil and is as necessary as the cultivation of corn. Air and moisture are thereby given access to the plant roots, making latest plant food available. By this operation oxygen, as necessary to the life and vigor of plants as to the human race, is furnished grass by cultivation and is possible by no other means.

This has been effectively demonstrated by alfalfa growers in their irrigated west where it is the custom to use renovators after each cutting.

All pastures as well as meadows increase production by an annual disking, this culture making soils mellow and alluvial and in the case of blue grass pastures cuts up and destroys the old semi-dead roots that have lost vigor and vitality, making room for new roots, exerting the beneficial influence as does the pruning of fruit trees. A demonstration of this is afforded by the manner in which the orchardist prunes to secure new and vigorous fruit wood, insuring larger and better quality fruit in greater abundance as well as an annual yield. Pastures require feeding to replace plant foods depleted by shipping out the product.

We cannot ship a couple of bullocks per acre without depleting potash and phosphate and other mineral elements that once exhausted are not readily replaced without use of artificials. The most successful grazers of Britain and France specialize in supplying manure lime and phosphate through the agency of basic slag, which unfortunately is not available in America in a form in which it can be utilized.

Excessive rainfalls have the influence of leaching into the subsoil these minerals. Lime content is thus continually lessened so that the soil lacks that essential alkalinity to the culture of clovers which simply will not grow in acid soil. One to two tons per acre every second year of finely ground raw limestone and two to three hundred pounds of phosphate rock should be applied in the fall that the elements may render it available during the winter. A one hundred pounds application of nitrate of soda at a period before grasses need a vigorous start before heat and moisture can discharge that function. By feeding cattle under sheds manure values will be conserved. Feeding in timber lots is extravagant—a pre-heating method in fact, effectively cheating pastures of their dues. Large open sheds sheltered from the wind, protect the cattle and insure conservation of fertilizers. An up-to-date, economic meat manufacturing plant cannot be maintained on an open-air basis.

Elimination of undesirable plants popularly known as weeds, of which rag weed, thistles and dandelions are conspicuous examples, may be most effectively accomplished by the agency of sheep grazing which everything but nettles, utilizing it to put on growth. Therefore, I would urge keeping enough sheep on permanent pastures which consume plants ignored by horses and cattle.

Rest is as essential to pastures as to animals; under continuous grazing it is impossible to control the natural preference of animals for tender, soft and less nutritious grasses compared with the ripened plants that have superior feeding values. This can be controlled by division fences, enabling pastures to recover. Such a plan keeps grasses sweet and has a sanitary influence; we must consider the hygienic phase of the problem in which at least some of the disease handicaps our domestic animals can tend with may be reduced.

The bane of over-stocking seriously deteriorates the earning capacity of

most of our pastoral lands. Your most economical method of operation will be found in making beef or grass during the grazing season thereby salvaging one hundred per cent of the manurial content of the concentrates. Cattle feeding during low temperatures and inclement weather involves heavy expenditure in maintaining vitality and health, all of which is a loss to the producer, whereas animals on grass and succulent feed utilize for growth a much larger percentage of the food value of the grain and cake consumed.

SAFETY FIRST ON THE FARM

By FRANK A. HUNTINGTON

WHILE so much is being said in the newspapers and by lecturers about safety rules as applying in factories, mines, street crossing in cities, on children's playgrounds, etc., why isn't it a good time for farmers to consider accident prevention?

Every summer in this locality newspapers report accidents caused by farm machinery striking stumps or boulders in fields being plowed, cultivated, or cropped.

For instance, last summer an elderly man was killed by being thrown off his binder against a transmission chain which caught his clothing and drew him into the machine. The accident was caused by a boulder against which the binder struck while cutting wheat.

After the accident the field was cleared of stones. But why wait until some one is killed or severely hurt before thinking of a clean-up? Why are so many people prone to lock the stable after Dobbin has been stolen?

Another farmer near me nearly lost a leg due to his mower guards catching on a low, hidden stump in the grass he was cutting. An artery was severed and he had a narrow escape from bleeding to death.

Of course, the stump should have been marked in the early spring before the grass became high enough to hide it, or better still, I believe in blasting them out and being rid of them forever. The stump that caused this accident was taken out after it had done the damage, but why wasn't it disposed of before?

The safety societies are trying to teach forethought; trying to impress on people how much better it is to avoid accidents than to hire doctors to patch up damaged parts or undertakers to bury victims of avoidable mishaps. A good rule on the farm, or anywhere else is: Play safe first and last longer.

Conserving Poles and Posts

TIMBER suitable for telegraph and telephone poles, fence posts, etc., is becoming scarce and expensive. It is estimated by the Forest Service that sixty years hence will witness the practical extinction of such material. At present about 4,000,000 poles are being erected annually. Records compiled by the Forest Service show that 95 per cent of all poles are destroyed by decay, 4 per cent by insects and the remaining 1 per cent by mechanical abrasion.

Scientists who have been giving the subject attention advise, as a result of experiments conducted by them, that creosote treatment applied to the end of the poles and posts embedded in the ground will lengthen the life of the poles as per the following tabulation:

White cedar—16 years (untreated) to 30 years (treated)	
Cypress — 6 " " " " 15 "	
Pine — 6 " " " " 18 "	
Oak — 8 " " " " 20 "	
Walnut — 8 " " " " 18 "	

There are three methods of treatment adaptable to the purpose: The open tank method whereby only the cutts of the poles are treated; the pressure process, used only on short poles; and the brush method which

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may be applied in the field as the poles are being set. The employment of the open tank method calls for the application of the treatment before the poles are shipped on the job. As creosote and the labor required to apply it are much cheaper than new timber, it is needless to say that railroad companies, telegraph and telephone companies, farmers and all others using large quantities of timber for poles and posts are giving this matter much serious consideration. Even yet, however, entirely too many posts are being set untreated and unprotected. This is a form of business extravagance that is unwarranted.

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The Spirit of the Soil

By W. L. HOUSER

President Wisconsin Live Stock Breeders' Association

IN THESE days of intense commercialism, when the standard of achievement is the dollar, when the strife for wealth is mad and furious, when ideals are traded for profits, when compensation for effort is calculated only in cash, when integrity is legally defined, we find the tendency strongly away from things spiritual. And truly only in the pursuit of agriculture do we find an attachment for the calling that holds for those engaged in it a measure of compensation outside of the material gain that comes from the business. It is the spirit of the soil that does this. This is the subtle, though easily recognized influence that holds men, inspires and encourages them to continue in partnership with the soil even when the crops are poor, times hard and returns in cash for labor and ability meagre. They love it as they love God and family. The soil is holy and men worship holy things. And things men worship most hold the greatest measure of mystery.

There is mystery, profound and unathomable, in the soil and its processes. There is no mystery involved in the making of a machine or the running of a railroad train, though judgment and skill are required to do either well. But there is hazard, reservation, uncertainty and speculation in the growing of crops and in every expression of the soil's economy. This makes the custody of the soil fascinating, romantic. There is so much room for interesting experimentation. The sources of investigation are so numerous and varied, the development of the crops and the response of the soil to scientific and skillful manipulation so pleasing and gratifying, that men are, and always will be, held under the magic of its irresistible influence.

This is the spiritual side of agriculture. It is the anchor that will hold men in their devotion and service to it, as the mystery and grandeur of creation hold men in devotion and service to the great author.

Now this influence does not bind all men to the soil. The dominating desire for wealth, care-free employment, commercial success, luxury and superficial pleasure, are winning sons of the soil away from farm environment and activity—too many of them. But yet the binding tie is there in the hearts of most men who have trod the earth, fed and handled domestic animals, enjoyed the music of the fields and the joy of partnership achievement with the soil, and all the scenes and experiences of farm life, though sometimes, oftentimes hardships and disappointment outwardly seem to overbalance the compensating things. And wherever these go, whatever they do the longing is active for a return to the scenes of youth and the country.

There is an attraction in the soil that has not been generally recognized in the past that will be potent henceforth in the drawing men to the pursuit of agriculture. Men find in modern agriculture a challenge to great ability, learning, and skill of a high order. In fact, modern agriculture demands men highly trained and clever in all things that pertain to soil economy. Heretofore, locked up resources of the soil, the necessity for rehabilitation of exhausted areas caused by ruthlessness, carelessness and ignorance—sometimes necessity—surveys, proper crop rotation, ascertainment of adaptability of certain soils for certain crops, application of business organization to farm operation, have been neglected, overlooked, ignored. But it is different now.

The opportunity in farming for the use of ability, training and skill is such a broad field, and returns result in achievement that are such splendid contributions to world needs, and hence are so gratifyingly com-

pensatory to men of high ideals and lofty motives, men whose souls have not been poisoned and atrophied by the lust for pelf at whatever cost—men of fine fibre and clean, clear minds—that they are seeking and find the soil the mecca of their desires—desires that are soul fed and that have in them the sublimity of consciousness of work with the author in the evolution of His mighty plan of creation.

Big men love to do big things. The soil offers opportunity for big achievement.

Sentiment, imagination, poetry, song and beauty are the purveyors of tranquility. In farm life—in farm work—where the right spirit animates the man, are found these sweet things of life.

It would be foolish to say that farming is one sweet unbroken song without discord or end, but from every farm task, however unpleasant the right attitude of heart and mind coupled with scientific deduction will reason to and see results that are compensating and in the achievement of which there will be stations along the way that are pleasant and beautiful. And the fruitage will be full and perfect.

Everything that grows, that has life, is beautiful—beautiful in plan and if not marred or mutilated by man's neglect or ignorance should be beautiful in themselves. Beauty satisfies the imagination, the aesthetic in our natures, and pays all it costs. The fields and crops, the seasons; scenes and activities of the farm are so shiftingly panoramic, so pleasing to the eye and soothing to the ear that to men who have the spirit of their surroundings in their hearts each day is a scenic picture far surpassing the artistry of greatest renown—who are only imitators of Him who made the earth, the grass the trees and beasts—all things of beauty and joy forever, and all pleasing parts of farm life.

Our shortcomings are in magnifying the so-called drudgeries of the farm, so that they obscure the beauty of scene and play—the great drama of nature nowhere so close to man, of which he is so much a part, as on the farm. The spirit of agriculture! The spirit of the soil! Again, the soil, the earth, is holy. It is the cradle in which God rocks his children, soothes and comforts by the music of created things—a thousand singing birds rushing, tumbling streams, rustling leaves, and the countless contributions of members of nature's choir that swell their voices into a wondrous chorus, grand and harmonious. There are no bad or broken notes in creation's music.

Count your cash, ye captains of industry, glory in your scepters, ye governors and kings. Satisfy your lust for wealth and power, ye who determine the destiny of government and mislead commerce by their use and misuse. But when we seek the place where the soul is satisfied, where tranquility of spirit is found, where health, a clear conscience and clean living are common, look to the farm and its contributing environment. And they will weigh in the balance against all the other things when we reflect, and return over life's paths and seek retrospection the comfort and consolation at the evening of our lives demand.

Panthers are reported to be playing havoc with live stock on the lower Rio Grande ranges in Texas. One farm lost twenty horses and some families have been menaced by the wild animals.

Wisconsin has "come back" as wheat producing state. In 1917 at 1918 the wheat average of that state was doubled.

Sell the Poor-laying Hens

By JOHN B. HAYES

Instructor of Poultry Husbandry, Wisconsin College of Agriculture

DURING the present period of high feed prices, the production of the farm flock should be increased. The average production can be raised immediately by culling the boarders or poor producers. In one farm flock approximately 30 per cent of the hens were marketed without decreasing the production. Why? Because some hens, like the boarder cow, were being supported by the rest of the flock and giving no returns. Each poor producing hen can deduct about 50 cents a year from the possible returns of the flock.

Culling methods cannot tell one the exact number of eggs that the hen has or will lay, but it does tell one whether the hen has been profitable or has been kept at a loss. Under the same conditions of feed and care the first year's production will determine the second year's, as a hen's productive ability will generally decrease 15-20 per cent each year. Culling allows one to dispose of the poorest pullets before the end of the first year and only keep the best over for the second year.

Vigor and vitality are the foundation on which profits are based. A hen must have these to be a producer, and they are indicated by the head.

Close observation and study shows three types of heads in hens. The first is the hen with a fat head and neck. She has a sunken eye, heavy comb, wrinkled face, and shows indications of masculinity. A coarse, meaty individual like this can only consume enough feed to maintain her body with none left over from which to manufacture eggs. The other extreme is the head that is long, narrow, lacks in depth and has little comb development. This hen is generally lacking in the capacity necessary to make a heavy producer. Both of these types are most profitable when sold to the butcher. The third type of head is that of the producer. Her head will be relatively short, broad, deep and the eyes will be very prominent. The eyes are generally compared to shoe buttons in the way that they seem to protrude from the head almost as if the hen was scared. The head is a very important point of consideration.

Another change that was noted in early laying, yellow skinned birds was that they seemed to fade out in certain sections after they had been laying for some time. The most noticeable sections were the eye lid, the beak, the shanks and the ear lobe of Mediterranean birds. This change takes place in a regular order each year. After about six weeks of real heavy production the beak turns white, with the white band first appearing near the head and gradually extending out to the point. After three months of heavy production the shanks or legs are pretty well faded. When the hen goes broody or out of condition the yellow color returns to the parts in the same manner. This test is especially profitable in the early spring and fall to cull out the hens that have either not produced during the winter or loafed most of the summer. The range, feed and the introduction of Orpington blood into the flock will affect the intensity of the

color. Bear these points in mind when applying the test.

One of the radical changes that study has made is in our ideas in culling based on the hen's molting period. The earlier a hen molts the poorer producer she is and the later she molts the better producer. This is a reversal of practice as the opposite way has been the commonly accepted method. That is probably one of the reasons why the production of the farm flock has not been increasing as rapidly as it should have. A pullet that starts laying in November and molts in July only works eight months out of the year. Another hen that starts laying in November and lays until October or November works eleven or twelve months out of the year. In spite of the early moult the first hen will ordinarily not get back into producing condition or produce as many eggs the following winter as the hen that moulted late. Any hen that molts before the first of September can be sold and the average production of the flock will be increased by her absence.

Quality in the hen can be determined by the thinness, straightness and pliability of the pelvic bones. Bones that are coarse, thick and crooked are to be avoided and the hen disposed of. Distance between the bones tell one whether the hen is at that time in laying condition as the bones spread when the laying stage is reached and close up when the hen passes that stage or ceases to lay. Capacity or the ability to handle a large volume of feed is necessary for production. The digestive tract of the hen and her egg forming organs are both located in the rear of the body. If a hen is so lacking in depth that one can only place two ordinary sized fingers between the pelvic bone and the keel bone, the hen is a fair or poor producer. When there is room for from four to six fingers in that region and the abdomen feels soft and velvety, the hen is in fine condition and can transform a large quantity of feed over into eggs. Dispose of the shallow hen and keep the one with depth.

Most flocks are culled from June to October. The spring rush of eggs is over by that time and the flock is reduced in size to make room for the pullets that are developing. One should never be guided by any one point, but should keep all of them in mind when going over the flock. Consistent year after year culling to discard the poor specimens will mean that the average production of the flock can be improved each year, if these high producing hens are mated to males that come from high producing hens or at least from flocks that have a high average, and their eggs saved for hatching. Keeping old, inactive, low-producing hens in the flock is a waste of feed, time and attention that cannot be allowed during the present period of high prices. If at any time one notices some individuals that are lame, crippled or do not exercise but spend most of the time on the roost, send them to market or eat one for a Sunday dinner.

Closer culling, better feeding, earlier hatched chicks and better care will increase the income from the farm flock.

Inbreeding Accomplishes Certain Results

WHAT is lost or gained in the inbreeding of stock has been the subject of experiments at the University of Wisconsin, which during the last few years have shown several interesting results.

The experiments were started in 1913 by the departments of genetics and poultry husbandry by selecting for vigor and fertility on the one hand, and for color on the other, so that definite data in regard to the results ob-

tained might be available to breeders.

Rhode Island Red fowls were chosen as the subject of the experiment, and the selection for breeding was first made entirely on the basis of color. Inbreeding was as close as the mating of brother and sister, and the stock showed each year a steady decrease in vigor, as indicated by the hatchability of the eggs.

Figures for the five years during which the experiment was carried on

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show a rapidly falling off in fertility and the complete running out of the stock. In 1913, 67 per cent of the fertile eggs hatched; in 1914, 49 per cent; in 1915, 41 per cent; in 1916, 18 per cent, and in 1917, none. The hatchability of the fertile eggs of other birds kept with these during the same years, and not inbred, remained about the same and did not show the rapid decrease in fertility.

In 1918 a new phase of the experiment was initiated. Close inbreeding was maintained again, but selection was now made for vigor and fertility. This has been carried on during two years only, but the stock is not showing the rapid decrease in fertility, and those in charge of the work expect that it will maintain its vigor.

These experiments seem to show, according to L. J. Cole, head of the department of genetics, that through close inbreeding a breeder may maintain the quality he is selecting for, but he is likely to lose other qualities. If he selects closely for color and type

he is likely to lose in vigor and fertility. If he selects for vigor, it is difficult, without large numbers, to maintain the type. The first part of the university's experiment produced birds of wonderful color, but in the second phase the color is already going to pieces.

It is a well known fact that all the important breeds of live stock have been established by inbreeding. On the other hand, many practical breeders have had disastrous results in using the same method. Experiments have likewise given contradictory results, depending upon the basis of selection.

A Harvard professor, in experiment, with many generations of fruit flies found no loss of fertility, if specimens were selected carefully. In the case of rats, when he selected for color, he found that inbreeding reduced fertility. Another experimenter inbred rats, as closely as brother and sister, for some thirty generations, selecting for vigor, and produced the largest type of cat known.

Egg Production of Four Breeds

OTTO I. BERGH, superintendent of the North Central Experiment Station at Grand Rapids, Minn., has conducted a very interesting comparison of egg production, using single comb White Leghorns, Rhode Island Reds, Barred Plymouth Rocks and White Orpingtons.

Regarding this test Supt. Bergh says:

"The egg and feed records in the table below is a summary of daily records covering a period of three years with four breeds kept under the same conditions of housing, feed and management. The different flocks had free access to the mash-feed hoppers at all times. Scratch feed was supplied according to their demands. Skim milk and buttermilk is included in the 'feed consumed' at one-sixth by weight. Green feeds such as potatoes, roots and cabbage are not included.

"It is clear that the Leghorn is the

outstanding egg laying breed among those included in the test, and can be recommended for poultrymen who keep flocks mainly for egg production. The Leghorn is pre-eminently the breed for townspeople and for the man who is going into the poultry business for egg production in an extensive way. The Leghorn hen not only produces more eggs, but she produces larger eggs than either of the other breeds under test, and she does this on much less feed, which recommends her to the man who must keep the flock penned in and for which the feed must be purchased. Leghorns seldom become broody.

"A test is now under way at this station comparing the different breeds for economical meat production, which when completed will give data on the four breeds both with regard to the production of poultry for meat as well as eggs.

Poultry Record

THREE-YEAR SUMMARY BY BREEDS

	Single Comb White Leghorns	Rhode Island Reds	Barred Plymouth Rocks	White Orpingtons
Average number of eggs per hen by breeds	121.91	104.82	86.26	81.76
Feed consumed per hen in pound	53.41	57.08	87.05	115.23
Number of eggs produced per pound of feed	2.35	1.98	1.00	0.71
Average weight of eggs, by breeds, in ounces	2.15	2.12	2.02	2.02
Number of pounds of eggs laid per year	16.38	13.38	10.89	10.32
Average weight per hen in pounds	5.3	5.3	6.7	7.1
Egg production of hen times her own weight	4.2	2.4	1.63	1.45
Value of eggs at 48c per dozen	\$4.87	\$4.19	\$3.45	\$3.27
Value of feed used at \$60.00 per ton	\$3.75	\$2.04	\$2.50	\$3.40
Profit per hen above cost of feed	\$3.12	\$1.25	\$0.95	\$0.13
Loss per hen above value of eggs				

Wisconsin Wool Pool Organized

WISCONSIN sheepmen have organized the Wisconsin Division of the Fleece Wool States Growers' Association and have elected seven wool growers as a Board of Directors to direct the handling of this year's clip.

They hope that by pooling and grading their clips sheepmen of the state will realize more from their respective shares of the 4,000,000 to 3,000,000 pounds of wool annually produced in the state. They have to assure them the experience of the pools in Wisconsin and adjoining states in 1919, when an increase of from 10 cents to 15 cents a pound over local bids was realized by collective marketing and grading. While, for obvious reasons, they are not anticipating such added returns this year, they do recognize that the collective selling of wool upon a graded basis is the fairest and, over a period of years, the most profitable method.

The directors have issued the following statement:

"Wisconsin wools are entitled to, and should have a reputation upon the markets of the country and the officers of your association feel confident that nothing will serve more to build such a name than the proper

grading, and collective selling of the state's clips.

"Detailed information upon the shearing, handling and shipping of wools will be issued soon. In the meantime we believe every interested sheepman will be serving the best interests of his fellow wool producers if he will acquaint them with the state wide plan. We urge that you secure and send us the names and addresses of as many as possible of the wool producers in your county in order that they may receive the information and instructions as soon as printed.

"Mr. L. C. Foster, Assistant Director of the State Marketing Division, will be glad to visit any county to meet with the sheepmen to explain methods of organizing as well as handling and shipping the wool. Write him today if you want him to speak at such a meeting. His address is: Marketing Division, State Capitol, Madison, Wis.

"The association has contracted with the National Wool Warehouse and Storage Company of Chicago which is owned by 700 sheepmen to handle the Wisconsin pool this year. It agrees to grade, store, insure (for five months), and sell the clip for cents a pound. This means that Wisconsin wools will be presented to advantage.

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Cloverland Trail

The Scenic Boulevard That Links
Together Michigan's Iron Ranges

By WILLIAM K. GIBBS



HUNDREDS of years ago when the giant glacier swept southward from the Arctic, chiseled the shore lines of the Great Lakes, dotted the Central West with countless smaller lakes, and otherwise fashioned the contour of the country in the upper Mississippi Valley, this monster ice sheet very kindly deposited a part of its vast load in three distinct and separate sections of Cloverland—otherwise the Upper Peninsula of Michigan.

You motorists who are familiar with the states of the central division, or who think you are familiar with those states north of the Mason and Dixon line and west of Ohio to the Rockies, have something to learn if you imagine that the rolling slopes of Indiana, the prairies of Illinois, or the gently undulating topography of Iowa have all the charm that the marl imbued with the spirit of wanderlust can hope for. You who seek out the Rockies, the Adirondacks, the White, Green, Blue Ridge, or Cumberland mountains, secure in the belief that scenically there is nothing even approaching mountainous in the environs of the Great Lakes, read and heed.

Cloverland, a section which embraces the entire fifteen counties of Upper Michigan, can justly be proud of its rugged iron ranges, of which there are three—the Menominee, Gogebic and Marquette—that, separately, or as a whole, remind one of a miniature Colorado. You who have seen and gloried in Colorado's Rockies will find the same enchantment, the same colorings, the same charm on the Michigan iron range. True, you will not find the extreme heights, the yawning chasms and the bald peaks nude of verdure of any kind. Here is a combination of rugged country with all the kaleidoscopic mantle of Nature, which she produces only in the lower altitudes.

Linking these three ranges are roads, which, for continuously high grade and condition, the counterpart has not yet been found by the writer east of the Rockies. As has been said there are three distinct ranges, each with its especial charm, and hence it will be necessary to divide this story into three sections.

There is no reason why the Menominee range should be given first consideration except that the tourist entering Cloverland by the Menominee gateway encounters it first. Menominee, being the easier and most popular means of ingress into this fairland of the north, sees its tide of motor traffic ever increasing. Let us assume, then, that you will choose to enter Cloverland via Menominee, if you decide to enter at all (it will be your loss if you don't) and we will cover the Menominee range first.

As the skyline of Menominee fades out of the rear view mirror on your spotlight, before you will stretch something over forty miles of perfect road, straight as an arrow, pleading with you to induce your motor to sing its song of the highway in ragtime, jazz tempo. When Wisconsin's fa-

mous Route 15 along the shore of Green bay crosses the Michigan-Wisconsin line it becomes the Cloverland Trail.

Some places the woodsman's axe has laid bare the countryside; in others there are stands of heavy timber. Habitation is scarce, but the road is ex-

is Escanaba, Manistique, the Soo and several other prominent Lake Superior ports. To the left is the Menominee range and still farther, the Gogebic.

The principal city of the Menominee range is Iron Mountain, about thirty miles west of Spalding. Almost

Like all mountain roads which never seem in a hurry to get anywhere that is, they wind about and seem uncertain where they will go next, the Cloverland trail wends its serpentine way westward. You rise some 1,500 feet between Spalding and Iron Mountain.

If you have ever been in a position truthfully to repeat the famous Pershing phrase, "Lafayette, we are here," you very likely are familiar with the layout of streets in European villages. If you haven't been across, mayhap the movies have shown you. If neither of these suppositions are true, your first glimpse of Vulcan twenty miles west of Spalding, will be a surprise. Houses are built right up to the edge of the road or street and the street is so crooked that you are fortunate if you can see more than

a block or two of it at one time. Ever the houses—miners' abodes—are peculiar in construction. If you were suddenly dropped down in Normandy Flanders you could find a living more unique or similar.

What is true of Vulcan and its streets and houses is equally true of its neighboring mining town of Norway, built so close together that their limits seem to merge. Some seven miles beyond you come to the rim of a bowl, in the bottom of which nestle the city of Iron Mountain, home of the deepest iron mine in the Menominee range, and a town with the distinction of having three good sized lakes within its limits.

Iron mining began in the Iron Mountain district some thirty-three years ago and the average annual production now approximates 3,000,000 tons. The Oliver interests produce the bulk of this tonnage, but there are several other companies producing. Iron Mountain is what I would call a typical mining town of the better class. It is not so very much unlike such mining towns in the Colorado Rockies as Leadville, Salida and Cripple Creek although, of course, the altitude is lower and the mantle of vegetation surrounding seems more colorful.

Dickinson county, of which Iron Mountain is the capital city, does not lack for any of the charms which tourists expect to find. Fine fishing, both trout and their scaly brothers interests many disciples of Isaac Walton throughout the season. Camp places are many along the wooded shores of lakes and streams.

Nature has been kind in furnishing some rare and beautiful falls in the streams tributary to Iron Mountain. For example, there is the Twin Falls of the Menominee river, three miles up the river from Iron Mountain. Here is found the Peninsula power plant, hydro-electrical station of no mean calibre. Just above the power plant the Cloverland trail to the west crosses the broad expanse of the Menominee into Wisconsin, coming back into the Wolverine state just west of Florence, Wis.

Another interesting sight is the Lower Falls of the Menominee, to

(Continued on page 30)



Lower Twin Falls of the Menominee River Near Iron Mountain

cellent macadam and the visionary narrowing stretches far in the distance beckon you on and are as elusive as the rainbow end until you reach Spalding and join the east and west trunk line through Cloverland. To the right

from the moment you leave Spalding you begin climbing through forests which bring home to you what Longfellow meant when he penned the first lines of "Acadia:" "This is the forest primeval—"



No Other Driveway Like This in the World—a Macadam Road Through Fifty Miles of Virgin Forest



Glimpses of Tamarack Lake from Cloverland Trail Over the Tree Tops



WHA'JA KNOW ABOUT TROUT?

By EATON SHORT

THE trout season is open in the best waters east of the Rockies. Let's go!

Never mind the cool nights and the raw winds that sometimes blow off Superior. Now is the time to get the big fellows. The streams may be a little high, the swamps may be filled with water, the going is hard, but what's the difference when we fill the basket with a bunch of beauties—the kind that puts up the gamiest fight and has the brightest spots and prettiest shades.

Yes, I'm talking about rainbows. And I'm talking about speckled trout, and brook trout, and salmon trout. We'll talk about bass, and pike, and

cording to season, and a fly juggled on top of the water or even sunk out of the fly season is more apt to be regarded by the wily trout as a curiosity and a thing to be shunned rather than a tempting morsel. Get close to nature yourself and bait with the food trout approve of at this time of year.

About the best bait at this time of year is the white grub found in decayed stumps and logs. It's a job to dig them out but you get big returns.

Then, there is another little white worm, or grub, that may be found huddled up in the curly bark of alders and birch that is a natural feed for trout early in the season.



There is No Crime in Baiting a Wet Fly

pickers, and muskies in June and July, August and September, but it's trout now, nothing but trout.

This is the season when trout are best, when they are solid as a rock and fight the hardest, when the big fellows shove the little fellows into obscurity. They're all there, waiting for you, and you can get them if you know how. That's it—if you know how.

Let me give you a few tips on this knowing how part of early trout fishing. But first, what do you know about trout?

There are few flies at this season of the year, so don't waste all day or a lot of precious time trying out all the flies in your case. Trout feed ac-

cording to season, and a fly juggled on top of the water or even sunk out of the fly season is more apt to be regarded by the wily trout as a curiosity and a thing to be shunned rather than a tempting morsel. Get close to nature yourself and bait with the food trout approve of at this time of year.

The common angle worm also is good trout bait at this time of year, but the white wood grubs are better. Don't confuse these grubs with the big fat grubs of the manure pile, which are good only for sunfish, perch, bullheads and rough fish.

If you can't find wood grubs, or haven't the time to get them, or you are too lazy to dig them out, a substitute may be made of fat pork or fat bacon. Cut the fat into strips about the size of a grub, and sometimes it will work fine. But at times it seems that the trout know you are fooling them, and pass up pork like a Jew.

There is one other little trick that some times makes a hit with trout early in the spring. Put a little piece of red beef, or a bit of fat pork on the point of a fly hook, and fish deep.

Of course minnows are good, and sometimes you make a hit with small crabs, but minnows are better. A trout is the most vicious canabal in the waters, but feeding on fellow inhabitants appears to become nauseating at times, and they crave something from the woods or soil—grubs, bugs and worms. Flies come later.

These pointers do not follow the catalogue. Neither do boys and Indians. But they catch trout because they live close to nature, they observe nature's ways, and take their fishing cues from nature.



Not "Luck"—Just Fishing



Mackinac Island

The
Summer Resort
of America



The art work of nature, Indian legend, and panoramic scenes that have made history in time of war and in time of peace all blend in harmonious welcome to tourists entering Cloverland through the southeast gateway, or bid adieu to the traveler after a sojourn at the wonderful Mackinac Island.

The island is justly famed for its scenery. The heights command views of sea and shore, ever changing with the varying lights and shades of the hours and the movements of passing ships. Well kept roads—thirty miles of them—lead in various directions from the village, through the woods, amid curious rock formations, now along the edge of the bluff with vistas of the lake, and again to some open outlook, whence the panorama is bounded only by the limitations of vision. There are glens and ravines innumerable; open spaces which were the ancient gardens of the Indians; and delectable parks, whose clumps of shrubs and trees are so effectively arranged that one at first thought credits the artistic effect to the skill of the landscape artist rather than to the caprice of nature.

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CLOVERLAND TRAIL

(Continued from page 28)

and one-half miles south of Iron Mountain. This is the home of the Hydraulic Works, which furnishes power and air in the mines.

Spread Eagle lakes, seven miles west of Iron Mountain, are a mecca for tourists. Thirteen distinct bodies of water, the sheen of which is like molten silver, stretch over the landscape in such a way that, were you to see them all from an airplane would remind you of the eagle on American coins from the mouth of which floats a banner bearing the legend: "E Pluribus Unum." Even the legend holds true of Spread Eagle lakes—they are "one formed of many."

Many cottages, good fishing, camping and hunting can be had at Spread Eagle and in the vicinity.

If you were thoughtful and brought along the old golf sticks you are fortunate; if you did not bring them—well—you will regret it when you see the Pine Grove golf course. If you stop at the Hotel Milliman, which you probably will, C. H. Milliman will hardly let you get away without seeing the course. As nearly as I could gather C. H. golfs not a little.

From various sources information came to me that the Pine Grove links took precedence in "sportiness" over any other in this country. World's champions have played there and have declared even Scotland offers nothing better. The fairways have been veritably hewn out of a pine forest, the greens have the velvet appearance of any you find at the millionaires' exclusive club, the hazards are many and if a slang expression may be pardoned, they are "some" hazards. Some of the fairways follow up and around the periphery of a hill. A hook or a slice might help, but it is best to stay out of the rough for once in, you might as well drop another ball and proceed. You are certainly in the woods when you get in the rough here.

Many golf enthusiasts come each year from remote parts of the country in order to play on this course because it is unique in the realm of golf. Then, again, aside from the magnetic attraction mentioned, the odor of pine and balsam has a soothing effect on the nerves and makes for a better game. The club house is ample and the tourist is welcome; he needs no invitation and his is the loss if he does not cover the nine holes at least once.

Adjoining the Pine Grove golf links is a deer park where various wild game can be found and studied. Pheasants, white guinea hens also are quartered here at the expense of philanthropic Iron Mountaineers.

So much for the center of the Menominee iron range. We must be getting along west to the Gogebic, but there is so much of interest along the Cloverland Trail between the two ranges that one senses Nature at her best and carries long if time permits.

You follow the Menominee river west, part of the time on the Wisconsin side, the remainder on the Michigan side. The river forms the state boundary.

The western end of the Menominee range lies in Iron county just west of Dickinson. Crystal Falls, Iron River, Stambaugh and other smaller towns along the Cloverland Trail add their quota to the millions of tons of iron ore coming out of the iron region. Lumbering, too, is one of the leading industries.

The Balkan mine at Alpha, just before you reach Crystal Falls, is the largest open pit mine south of the Gogebic range. West of Crystal Falls five miles is the Fortune chain of lakes, where there are many cottages and plenty of camping and boarding accommodations for tourists. A few miles farther is the road leading off the Cloverland Trail to Chicagoan lake, which promises to be one of the coming recreation points on the south side of the peninsula, rivaling the

popularity of Lake Gogebic, well known to resorters of the Middle West. Chicagoan lake is four miles long and about a mile and one-half wide. Surrounded by virgin forests on every side, this lake offers fine fishing and bathing. Opportunities to camp are plentiful and there are some cottages. A project is under way to build a hotel, a large number of cottages and a pavilion on the south shore to be ready next summer.

Iron River, a prosperous mining town of more than twenty miles, comes next on the way to the Gogebic range. Leaving Iron River you begin a drive through magnificent timber lining either side of the trail and forming an archway of verdure through which the shafts of sunlight piercing the leafy canopy throw fantastic pictures and a network of shadows over the smooth white surface of the road. Tourists never get over singing the praises of this part of the Cloverland Trail.

Splendid gravel smooth and hard as the old pikes common to the East before the gasoline vehicle was in swaddling clothes, winds through this heritage of nature, first on the summit of a lofty hill, then dipping in the valley, crossing and recrossing numerous trout streams with an occasional glimpse of a beautiful lake or a bathing pool for deer, on and on through densely shaded stretches of awe inspiring silence, for the axe never has touched this enormous tract of timber except for the four-rod blazed trail that connects the east and west of Cloverland. Deer, rabbits, porcupines, gophers, squirrels, partridge and countless varieties of birds are seen with increasing frequency as you go deeper into this forest primeval.

Golden and Tamarack lakes are the two largest lakes on the Cloverland Trail in Iron county. Tamarack is on the line between Iron and Gogebic counties. What has been said of the road between Iron River and the Iron county line holds equally true in Gogebic. In the vicinity of Watersmeet the road builders left a giant pine tree in the middle of the road like a safety island in a boulevard. This lonesome veteran of the forest stands like a mighty sentinel to guard its smaller brothers.

Miles and miles with nothing but woods on either side and a boulevard under you—occasionally a patch of blue shining through the leafy canopy of green overhead. Would you speed through such scenery as this? The road permits, there is no county constable to raise a warning hand, in fact there is scarcely anyone to be seen except brother motorists, but some how you are loathe to leave this forest wonderland. You take your time and make it last as long as possible.

From Watersmeet you begin climbing again; climbing toward the Gogebic range. All the route is well marked and some five or six miles before reaching Marenisco a road to the right leads down to Lake Gogebic, a superb body of water with thickly wooded shores. Here is a favorite week-end spot for people of the Middle West. Special trains run in from the Twin Cities, Chicago and Wisconsin points. Good hotel accommodations and plenty of cottages make this lake resort especially attractive. The lake is but three miles off the Cloverland Trail and anyone is well repaid for the time in making the lake trip if only to view the lake and its surroundings.

When Lake Gogebic interest wanes but it never does, and you leave only because you have no more time, head your car for the open road and pick up the Cloverland Trail again where you left it. Five or six miles brings you to Marenisco where you cross the Presque Isle river, a beautiful stream and a paradise for campers and fishermen.

If any road can be called a speed way, Gogebic county roads deserve the

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name. For years this county has been the lumberman's mint and the iron miner's treasure trove. Millions of wealth have been taken from Nature here and a generous part of this wealth has gone toward making highways that are second to none in this country. No matter whether you wish to hunt, fish, smell the delicious odor of pine or hemlock, Gogebic county and the Gogebic range is the place. It's just a bit of heaven that you can't afford to miss. Climate is ideal; early dawns, prolonged twilights, cool nights make it the spot you have dreamed of so often and found so seldom.

The first indication of mining that greets the eye as you go west from Marquette is the famous open pit mines at Wakefield. Here are the largest and practically the only open pit mines in the whole Upper Michigan iron ranges. Perhaps I had better explain the difference between open pit mining and underground mining. That sentence is explanatory in itself. In open pit mining the surface earth is removed to the beds of ore and all of the mining is done by steam shovel. A glance at the Wakefield mines reminds one of the Culebra Cut in the Panama Canal, with which everyone is familiar either through having seen the canal or having seen it in photograph and movies.

Most of the iron mining in Michigan is underground, that is, a shaft is sunk and the ore hoisted by means of cable and mammoth buckets. In Wakefield, however, the steam shovel picks up the ore and deposits it on the cars or alongside of railway sidings ready for loading on cars. Practically all of the mining on the Mesaba range in Northern Minnesota is open pit work. This is the most inexpensive form of iron mining and the Mesaba range produces four-fifths of the ore that finds its way down through the lakes to the smelters and furnaces of Gary, South Chicago, Cleveland, Pittsburgh and other points famous for their steel mills. Wakefield is the one example on a large scale to be found in Michigan where the least expensive form of mining can be studied.

Bessemer, a few miles to the west of Wakefield, is a big producer of iron ore. The name "Bessemer" is commonly known throughout the world. Bessemer, as a name, means to iron what sterling means to silver. It is

the trade name for the best quality of steel products. Whether the city of Bessemer took its name from the trade cognomen, or the grade of steel had its derivation from the city, I shall not attempt to tell you. The topography of the country between Wakefield and Bessemer, and on to Ironwood, the third member of the trio of cities that go to make up the Gogebic range producing points, is rugged. Chiseled by Nature, the rocky crags, precipitous declivities and deep ravines, mostly clothed in a mantle of vegetation, remind one so much of the Rockies. I know of no expression I could coin that would be more interpretive than: "the miniature Colorado of Upper Michigan."

Whereas, a veritable boulevard links the Menominee range with the Gogebic, extending through Wakefield and on to Bessemer, nothing but the adjective "super" fits the boulevard connecting Bessemer with Ironwood, the latter city being the metropolis of the Gogebic range and promising soon to be the metropolis of Upper Michigan.

Ironwood, the name signifies its industries—iron and wood, or wood products. Eleven million tons of iron ore come from the Gogebic range annually, practically all finding its way to eastern points through the port of Ashland, Wis.

Ironwood has a true valuation of over \$30,000,000 and it is dependent upon the operation of the Newport, Norrie, Papst and Ashland mines for its existence.

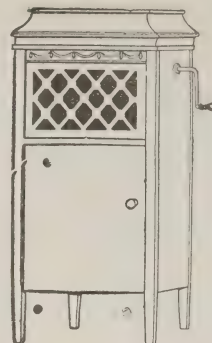
It will be equally as interesting to retrace your way back through the trio of iron cities on the Gogebic range and retracing will be necessary if you would visit the Marquette range, which lies south and west of Marquette. Let us suppose then, that we have retraced our steps to Crystal Falls. Then we take another road to Sagola and thence north through enchanting forests on the right and left—forests, with the virginity of the sixties—and to the front and rear the modernization of a macadamized highway.

Before entering the Marquette range digress for a moment, while I tell you that Lake Michigan is but five miles west of Humboldt. The charms of Michigan are a story in themselves, but right here let me say that you cannot afford to overlook this sheet of water with its fifty-five miles of shore line and thirty-two islands which stud its surface like the jewels in a sunburst. "Twere paradise, enow," Omar might have rhymed of Michigan had his habitat been Cloverland instead of Persia.

You probably have discovered that names of towns, lakes, rivers and mines in Upper Michigan are mostly of Indian and French derivation and the two principal cities of the Marquette range are no exceptions. Ishpeming, which is the largest of the cities in this iron-producing region, was given its name by the Indians and means "big heaven," or "high heaven," this name being given because of its high altitude—1,402 feet—while its neighbor, although the line of demarcation is less pronounced than is the imaginary line between "big heaven," and "little hell," the more-expressive-than-descriptive meaning given by the Indians to the word, "Negaunee." Negaunee bears the distinction of being the point where the first iron ore was discovered in Michigan and a monument marks the spot. The inscription on this monument bears this legend:

"This monument was erected by the Jackson Iron Company in October, 1904, to mark the first discovery of iron ore in the Lake Superior region. The exact spot is 300 feet north-easterly from this monument to an iron post. The ore was found under the roots of a fallen pine tree in June, 1845, by Marj Gessick, a member of the Chippewa tribe of Indians. The land was secured by a mining permit and the property was subsequently developed by the Jackson Mining Company, organized July 23, 1845."

Here, then, was the modest beginning of iron mining in the Lake Superior region that has developed into a mammoth industry. Mining really began in earnest here in 1856 and 1857. A few small shipments were



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made in 1852 and Marquette began shipping ore regularly in 1856. Mesaba, Gogebic, Menominee and Marquette produce the bulk of the country's supply of iron, about one-fifth of the total production of the four ranges coming from the three latter mentioned.

The Cleveland-Cliffs Iron Company is the largest producer of iron in this district outside the Steel Corporation. Its chief workers are in Ishpeming, but the ramifications of this company are many and their interests are stretched along both Superior and Michigan shores. Not only is the company an iron producer, but it has vast lumber interests as well.

Ishpeming is the center of the mining activities in the Marquette range and is a model mining town. The mining organizations offer prizes for the best kept premises, the best vine-planting, window boxes, gardening and vegetable gardens. The streets of the city are ideal. Practically every miner owns his own home.

The famous Cliffs Drive, beginning and ending in Ishpeming, is noted for its scenic beauty, circling the highest points and affording an excellent view of the surrounding country. There are many lakes of interest, but Michigan, mentioned previously, leads them all in size and beauty.

Besides iron, the Marquette range produces some very rare Verde antique marble; also gold and silver, though these are not produced in quantities.

To Marquette range, as has been said, the honor goes of producing the first iron ore. Menominee was second, having produced the first ore in 1873 and had its first shipment in 1877. Gogebic was the last range to begin producing, its activities having begun in 1883, its first shipments coming in 1886.

The Cloverland iron range embraces some of the finest scenery to be found throughout the great central west and is on a par with any point in the Unit-

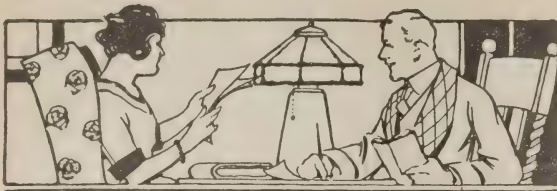
ed States for grandeur and beauty. In the Rockies you are appalled by the magnitude of the towering crags and yawning chasms. You feel so insignificant; realize how small a part of the world you really are. Here in the Cloverland iron ranges you find things more your own size, so to speak. No one will say to you: "See that peak, yonder; that's 14,103½ feet above sea level." In the West they pride themselves on height. In Cloverland you get the real beauty of mountain colorings, brought sufficiently near for you to admire at close range. Moses had to stand on the mountain and view the promised land from afar, much the same as you have to do in the Rockies. Here you can go Moses one better; you not only can view from afar, but you can get right into this treasure trove of nature, seek out her rendezvous, in short, her secrets are before you like an open book.

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The following budget apportioning income was prepared by an authority on household economics:

- Rent—Not more than 25%
- Food—From 25 to 40%
- Clothing—From 15 to 20%
- Operating—From 6 to 18%
- Advancement—From 1 to 15%
- Savings—From 2 to 15%

The above will serve for a working basis. Changes can be made to suit individual requirements. The more the expense items are reduced the greater will be the savings. Deposit yours in your local bank.

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Fellowship and Settlement

By HENRY A. PERRY

FARM settlement today is an entirely different problem than existed two generations ago. All things have changed within the last forty or fifty years, with the possible exception of methods of farm settlement. The same old beaten paths are followed to obtain farm settlers in most sections of the undeveloped portions of states. Commercial organizations in the cities have pointed with pride to choice exhibits of agricultural products gathered from its surrounding country or from over the state as an example of what could be done, but the obtaining of settlers has been left to real estate operators, good and bad. Some have maintained a sort of development division, but the work of these special departments consisted largely of publishing perfunctory literature, gathering exhibits and telling their own city folks what wonderful crops are grown in their own state! Little or nothing was done to seek out prospective settlers, and still less was done to help the settler who happened to stray into the state, or was induced to buy land by some real estate agent or colonization promoter working on a percentage basis of all the cash he could extract from the new-comer.

When Cloverland Magazine was launched a few years ago to enter an unknown field for a publication—the actual development of a vast area of idle, unproductive land, but which would yield tremendous wealth annually if properly settled, it found old precedents to smash, old methods to obliterate, old "systems" of obtaining settlers to abolish, and that new standards must be set up, new policies adopted, the latent power of commercial associations for land development utilized and made effective.

As the new issues were presented to these organizations, the business men with vision grasped the significance of this new order of things, believed in the new policy, and many commercial bodies joined the co-operative forces of the magazine in a united effort to bring into this "new country" experienced stockmen from the west and experienced farmers from regions to the south where abnormal land prices precluded tenants from owning their own farms, or small owners from extending agricultural enterprises for their own benefit.

Quickly following the participation of commercial associations in the new plan for obtaining ranchers and settlers, the plan that has been so highly successful, came county boards of supervisors as active agencies for bringing immigration direct to their respective counties. State boards and commissions simultaneously fell into line with the new way of obtaining settlers—going out after them and bringing them in—and thus a great co-operative organization has been built up within the last three years, with Cloverland Magazine and its organization as the nucleus. This co-operative effort brings together the progressive forces of the three great states of Minnesota, Wisconsin and Michigan for the common good of all, and at the same time enables each commercial body or county board to obtain for its own community definite results in the

form of new settlers—the most valuable asset to any district in Cloverland.

The machinery for obtaining the big live stock operators from the west and the practical farmers from the Corn Belt states, is now in fairly good working order, it has already accomplished tremendous results and still bigger results will be noted this year, and next year, and years to come. But now, another important matter has developed with the immigration to Cloverland. The settler and rancher often needs assistance in finances; advice as to methods of farming and kinds of crops to be grown; advice as to feeding, breeding and housing sheep and cattle; advice as to markets; sociability of neighbors.

The settlers should be regarded with utmost concern by the community and state. Banking connections and accommodations may easily be negotiated, there is a county agent in nearly every county in Cloverland ready and willing to give the settler advice on local problems of agriculture and live stock production, and the disposition of all communities is to be neighborly, but there is lacking organized methods of extending these services, courtesies and kindly considerations to the new-comer. It is a matter for each community to adjust for itself.

The settler doesn't want to be carried about on a silver platter, nor does he expect to be—he is more apt to enter this new country with full expectation of carving out his own future, independent and alone. How much more appreciative is he, then, if he finds he has brought his family into a community that quickly extends the hand of friendship, that his new neighbors are interested in him and anxious to help him, that the state and county in which he has located provides the services of an expert agriculturist and stockman free of charge, that the banks are willing to pilot him through some of the difficulties he may encounter in becoming established.

This spirit of service to the stranger may be found anywhere in Cloverland, but it has not an organized way of presenting itself, of making itself felt when the new-comer arrives. The settler and rancher finds out all these things eventually, but how much better would he be for each community to attend to this detail for him in advance of his coming. It will result in more settlers and quicker assimilation of settlers—which, after all, is the most important phase of the entire immigration problem. The permanency of the settler is the objective of all development enterprises, and to make the new settler permanent it is necessary for the old settlers to give him every encouragement for the first few years which are very apt to be filled with his greatest hardships and most serious attacks of homesickness.

Communities that adopt this broad liberal, kindly policy, and make it known to the settler immediately upon his arrival, will find in a short period of time that it pays big dividends in development of farms and ranches; and more new settlers from the old neighborhood of the first new settler.

Boys' and Girls' Puzzle Problem

Only one correct answer was received for the "How Much Are Eggs" problem in the April number of CLOVERLAND MAGAZINE. Allan J. Grant, of Goodman Wisconsin, gave the correct answer and wins the \$5 prize. Following is the answer:

Mary got 16 eggs for 24 cents, being 18 cents a dozen. Had there been 11 eggs for 24 cents the price would have been 16 cents a dozen.

Following is the puzzle for this month:

How fast was the horse walking?

I was walking along a country road steadily at the rate of four miles an hour. I saw a horse and cart going in the same direction, and when I saw them they were exactly 220 yards in front of me. I overtook them in 15 minutes. At what rate was the horse walking?

The Holstein-Friesian Cow—Grass to Cash

(Continued from page 5)



Sadie Gerben, a World-Famous Producer

It goes without saying that a breeder should seek high class foundation stock for his herd. The true type of the Holstein-Friesian breed is technically called the milk and beef form. It is especially strong in all vital particulars. The bones are fine, compared with the size, and the chine broad and strong, compared with the high and sharp chine of the extreme milk form. The loin and hips are round and smooth, and the rump high and level, compared with the angularity usually shown in the milk form. The twist is roomy and the thighs and rocks well apart. Passing forward, the shoulders are smoother and more compact than in the milk form, but of lighter weight than in the beef form. The brisket is not so wide and low as in the beef form, and the chest is not so deep, but the width of the beef form through at the heart is closely retained. In the milk form the abdomen is usually swung low, and the ribs are steep; but in the milk and beef form the ribs are wider sprung, and the abdomen more trimly held up, though no less capacious. The general appearance of the bull is strongly masculine, but that of the cow is no less feminine than in the milk form.

The true type of the breed is very correctly delineated in the scale of points. The Holland type, which is set out in the scale of points, is the result of centuries of selection and environment, and it has distinguished these cattle in all parts of the world. With it has come the marvelous and profitable production or yield, and the characteristic tendencies of powerful digestion and perfect assimilation of food. Large size in the Holstein is the first thing to impress the casual

observer, and its importance should never be disregarded. To this form of these cattle is due their extraordinary constitutional vigor or vital force, and it affects all their relations to their food, care and productions.

This breed excels in milk production, is superior for veal production, and valuable for beef production. For generations the natural conditions under which these cattle have been developed have been most favorable for this combination of qualities. Looking upon one of its model cows, the broad loin and rump seem just the place for the growth of the finest quality of beef and the fit support of the capacious udder. The straight quarters and well rounded body cannot detract from milk production. The calves are large at birth, and they grow and fatten with great rapidity. The breeders in Holland and Friesland have always avoided in-and-in breeding.

There can be no profit in animals that consume only the food necessary for support. The more they can consume, digest, and assimilate, above this, the more profitable. Another essential feature is that dairy animals should by no means be choice in the quality of their food. Cows that will freely consume the roughage of our farms and transmute it into valuable products—milk, butter, veal, beef—are more valuable than those that require the costlier commercial feeds. Holstein cattle, from calfhood upward, "are by no means choice in the quality of their food." In their native country they generally begin taking skim milk, usually more or less sour, at the age of from three to six days. Many of the breeders in America begin thus



King Segrus Pontiac Konigen, a World-Famous Bull

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Over \$2,000,000.00 Resources.

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First National Bank of Menominee

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Oldest and largest Bank in Menominee County and under same management for 32 years.

Depository for United States and State of Michigan

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Invites correspondence from prospective settlers. You can bank by mail with us.

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A General Banking Business. Commercial and Savings Departments.
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Your business inquiries will receive prompt and courteous attention.

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Marquette, Michigan

Officers and Directors: H. L. Kaufman, Pres.; S. R. Kaufman, Vice Pres.; G. A. Carlson, Cashier; O. E. Barber, Asst. Cashier; E. J. Hudson, E. S. Bies, Louis G. Kaufman, Chairman, Advisory Committee.



Line-up of Black and Whites at Crystal Falls. Just a Neighborhood Show

early to give them the same kind of food.

Quantity of production and persistency of milking during long periods are well known characteristics of this breed.

Prof. Low, an eminent English author on cattle breeds, informs us that early importations of Dutch cattle exercised great influence on the formation of the Teeswater Breed in England, afterwards known as the Short-horn.

The adaptability of Holstein-Friesian cattle to varying climates is a notable breed characteristic. Brought to their present high standard on the rich meadows of Holland, they lose nothing by removal to the Western Hemisphere.

On the rugged hillsides of New England and New York, the broad prairies of the Mississippi Valley, in Minnesota, and North Dakota, the high bench lands of Montana or the soil of California and Texas, they are profitable, prolific and dominant.

The strong Holstein blood not only remains unimpaired in all sections of

the world, but it improves all other with which it is mingled.

The farmer who is not engaged in breeding purebreds may grade up his herd of cows in a highly profitable manner by the introduction of a purebred registered Holstein bull. Even well chosen sire should give at least 50 per cent of his character to the next generation, so that the direct descendants of the fourth generation retain only a little over 6 per cent of the original blood, and thus 94 per cent of the farmer's own choosing.

Here is just one instance of the results obtained by the Iowa Agricultural Experiment Station in testing over ten years. A scrub cow had a record of 4,588.4 lbs. milk and 207 lbs. fat at 6 years of age. Her daughter by a purebred Holstein bull produced as a 4 year old, 6,822.8 lbs. milk and 283.7 lbs. fat, an increase of 49 per cent in milk and 41 per cent fat over the dam's best record.

That evidence, easily verified, should be pondered over well by farmers and dairymen who are desirous of a profit per cow, but who are putting off buying a purebred sire.

6,000,000 Sheep for Ohio in 1920

Several hundred Ohio sheep growers recently met at Columbus and formulated plans for an elaborate campaign to place 6,000,000 sheep on farms in the Buckeye state in 1920. Hundreds of thousands of acres of land in the southeastern portion of the state particularly adopted for sheep growing and which were once covered with flocks, will be restored to a maximum production basis. Before legislation and other influences adversely affected the eastern sheep industry Ohio was noted for its wool production and the excellence of its Marino flocks. Now that the farmers are assured of full returns for wool by the co-operative system of marketing, with reasonable expectancy for a long period of remunerative prices, they are very enthusiastic and optimistic over their plans for this year.

Co-ordinating with these plans an adequate dog law with provisions for effective enforcement will be enacted, which will solve one of the most seri-

ous problems confronting sheep growers in that state which bears such a large urban population.

The Pennsylvania Experiment Station has found that two tons of silage and 200 pounds of linseed meal will carry a 1,200 pound beef cow through the winter with some gain.

The First National Bank of DULUTH

At the Center of Cloverland

CAPITAL, SURPLUS
and PROFITS

\$3,250,000

THE development and progress of Northeastern Minnesota has for 38 years been the interest of this bank. In the future of this community and in the success of its people we have a vital concern.

Talk your problems over
with us or consult
us by mail.

First National Bank of

Iron Mountain

Iron Mountain, Michigan

Resources Over \$1,600,000

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Directors:
E. F. Brown, J. C. Kimberley, W. H. Scandling, A. Bjorkman, W. J. Cudlipp, R. W. Pierce, Jr., R. C. Brown, G. O. Fugere.



General View of Armour & Company's New Packing Plant at South St. Paul

THE NEW ARMOUR PACKING PLANT

By C. A. LIVINGSTON

THE new South St. Paul plant of Armour and Company, on December 14, after having been in operation a little over three weeks, had slaughtered the following live stock:

Hogs—21,057.

Cattle—12,855.

Sheep—12,174.

Calves—3,955.

The plant at that time was not being operated at its full capacity. In another month or two the daily average will be much larger. But these figures will give an idea of the increased demand for live stock in the northwest. It will be particularly interesting to readers of the Cloverland Magazine to note that the increased consumption of sheep will have an important bearing on a large district in northern Minnesota and Wisconsin, where sheep can be raised at a considerable profit.

The new plant at South St. Paul has attracted a great many visitors from all parts of the country and from foreign points. It is the most up-to-date packing establishment in the world respecting to great modern buildings, presenting the last word in architectural efficiency and sanitary construction, filled with the most improved machinery for converting the raw material of the farms and ranges into finished meats of commerce. The plant is beautifully situated on a fifty-acre site in the Mississippi Valley, with bluffs to the east and west and the river at its back. There are wooded hills in the distance, making a pleasing background for the steel and concrete buildings, which are faced with brick. To the west and south a park-like area has been laid out, enhancing the beauty of the surroundings of this great industrial establishment.

There are twenty-two model buildings conveniently grouped with reference to their general and specific utility. The ground area of these structures comprises nearly ten acres and in addition there are a number of

loading docks on a four-foot level, and car sheds which make the total acreage 12.24 occupied by structural features of the plant. There are four miles of railroad track inside of the property and 2,760 lineal feet of pipe tunnel. A brick roadway thirty feet wide connects the various buildings and runs around the outside of the structure. Ten million bricks, fifteen thousand tons of steel, one hundred and fifty thousand barrels of cement and four million feet of insulation were used in the buildings. There are forty miles of electric wiring and sixty miles of refrigerator piping.

Every building where food is manufactured, handled or stored is lined with white enameled brick and impervious salt-glazed tile.

The economic advantages of this meat factory to South St. Paul, the Twin Cities, and this section of the Northwest, fully equal, if not surpass those which have been notable in localities where the fifteen other packing establishments of Armour and Company have been located. It marks the entrance of Armour and Company into the South St. Paul market as a slaughterer, where in the past the organization has been only a shipper.

The establishment of a competitive market in this section of the northwest will be of immediate and lasting benefit to live stock raisers. It is expected that when the plant is operated at its capacity, the market facilities for this region will be doubled. General Manager Willard C. White estimates that \$90,000,000 will be expended for live stock by the new establishment during the first year of its operation.

This will give producers an increased outlet for their cattle, hogs and sheep, and will relieve them of the necessity of long hauls, causing shrinkage in weight of live stock, transportation expenses and frequent-

ly the loss of animals due to the hazards of shipment. It will afford an important link between the producers of the northwest and the great marketing system of Armour and Company with its more than four hundred branch houses, its four thousand salesmen, all of whom will be acting as sales agents for the products of farmers of Minnesota, Wisconsin and neighboring states.

Improved market facilities means more prosperity for the farmer, better prices for his live stock, improved farms, better dwellings and barns, better machinery, more money in the bank, greater purchasing capacity for the agricultural community, which will be reflected in the increased trade in the Twin Cities.

In addition to the vast sums of money which will be expended for live stock and supplies, it is expected that when the new plant is operated at capacity, there will be 3,300 employees, with an annual payroll of from \$3,000,000 to \$3,500,000 yearly. These employees will be an important addition to the population of South St. Paul and the neighboring residential

districts. This will mean practically an additional population of 15,000 spending their money in the neighborhood of the Twin Cities for food, clothing, education of their children, they will pay taxes, will buy homes, will have an important effect in stabilizing the labor markets. Something like 70 per cent of these employees will be skilled labor, drawing high wages. The average pay runs between \$25 and \$30 a week for all labor, including common labor.

Armour and Company, through the Armour Farm Bureau, will co-operate with the live stock producers of the northwest in improving breeds of live stock. This bureau works through existing national and state organizations, including county agents, familiarizing the producers with the type of cattle, sheep and hogs in greatest demand by the public. Bulletins are sent out frequently as well as booklets and other literature, relating to the live stock business. Exhibits are made at state fairs. The bureau works in conjunction with agricultural colleges and United States experimental stations. Wherever an Armour plant has been established, an improvement in the type of live stock results.



CATTLE and Sheep Men locating in this vicinity will find us both able and willing to assist them.

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SAULT STE. MARIE, MICH.

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CITY NATIONAL BANK
of Duluth



Woman and the Home

By HARRIET L. HARLOW



FOR THE SCHOOL GRADUATE

MAY, the month of apple-blossoms and bright colors, intermingled with golden sunshine, ushers in a bevy of beautiful light summery dresses.



Fig 1.

leaves one gasping.

Charming feminine dresses which make one think of the long ago are here, making our women more beautiful than ever. There is a good deal of talk about the Egyptian influence in fashions for the new season. Of course that is interesting because it presupposes straight lines, bright colors, fringes, stripe effects and embroidery, welcome alike for their designs and their almost crude hues. The flowered voiles are a delight to the eye and a joy to the possessor of a dress made of this material. Several of these fine cotton voiles might have been easily the work of some great spider of commerce, so sheer and delicate is the weave and yet strong withal.



Fig 2.

Taffetas and sateens are having their annual revival. The plain colors are most attractive and the two-tone effects are glorious.

Organdies are still with us, for which we should be thankful. It is liked in white, but even more so in color. What makes a prettier sight than a graduating class of young boys and girls, with all of the rainbow colors intermingled in the organdie dresses. Again this year, as last, the many colored organdies have been voted on for class dresses.

Ginghams we accept as a matter of course. They have grown more beautiful in pattern and coloring and this in a way makes them seem worth their advanced price.

Linen has lost

none of their old time attractiveness. They are liked in the heavier weaves for the smart looking suits and one piece dresses. Designs have never before rivaled each other as at the present time. Those shown in this magazine are not to the extreme but smart and simple for the home dress-maker.

There is no excuse for the woman today not granting her great wish to have many and pretty clothes if she will carefully look over her old clothes, clean and press and follow a few of our designs. There are all sorts of possibilities in the material on hand, with a little new added.

The clever, wide-awake woman will see this opportunity and profit by it. In correct choice of materials, colors and designs, etc., much thought and experience is needed. The women in the ordinary walks of life have not had the time and often not even the desire to study this subject of clothes from all angles. There are women who have specialized in this work. In fact, made it their life-work, and consequently can help you. Why not let these people be your advisers in the matter of planning your dress. They are ready and willing to do it for you.

Write today to this magazine asking advice on your dress and home dress-making problems, also send us your little helps on sewing, which you have found so we can help others.

We have planned a few simple designs this month for the sweet girl graduate. These dresses of course must be made the last of May or first of June.

No. 1. Frock of plain organdie, light green or yellow for the slender, dark haired girl, is pretty. The skirt is simple, gathered at the top with three self-frills. The round neck and short kimona sleeves are frill outlined with short puffs of lace set in. Self girdle with large bow in back, gives a girlish effect. Material required for the average height girl, 5½ yards, 40 inches wide.

No. 2. This simple little dress is pretty developed in plain white organdie or dotted swiss. The skirt is on a foundation with a tunic with three tucks in it. The large surplus collar with the tiny frills ends in the back with a bow. The short puff sleeves are finished with one tuck and a frill. Size 16 to 18 years requires 5½ yards, 40 inches wide.

No. 3. Dress to be developed in organdie, dotted swiss, voile or summer silk. The skirt has three ruffles raised a little at the front and back; kimona shoulder, with tiny tucks and sleeve finished with a ruffle; bodice with V tucked of same material; girdle may be of ribbon or material. Material required 6 yards, 38 inches wide.

The possibility of a good—old—silk skirt. This is what one woman made—and the total cost of the dress. I had a striped blue silk skirt, which had been worn a great deal but still did not show wear. It was ripped apart, pressed and found to measure just two yards in length and one yard wide. Two and one-half yards of good satin was bought to match the background of the striped material and a dress was made like the one illustrated below.

Fig. 3 represents the dress as it was made. Figs. 1 and 2 are different views of trimming the dress.

For the foundation of the skirt, I used an old black cambric skirt for the false top with a satin bottom, 18 inches wide when finished. The tunic and over blouse were of the striped



silk with the stripes of the material running around. The inner lining of the waist was also old material on hand with the kimona blouse and sleeve of the plain satin. The bow or ends at the back were made of the plain material. The tunic and over blouse were bound back with the plain material, leaving a piping to give a contrast on the striped material. Buttons covered with the plain material

were the only trimming used.
2½ yds. of satin at \$4.00.....\$10.00
2 spools silk thread20
1 card snaps10
Buttons covered38
Belting16

\$10.84
As this dress was made at home by a home dress-maker, there was no large dress-maker's bill to pay.

Care of the Sewing Machine and Motors

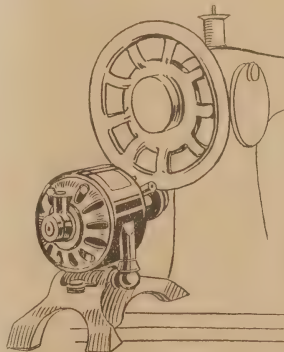
INQUIRY from a mother about the care of the sewing machine and a little trouble she was having with the tension, brought this thought to my mind.

How many mothers who do their own sewing keep their machines in good order?

While keeping the machine in order and cleaning it is a disagreeable task the satisfaction and pleasure in having

plan to use kerosene, leaving it on the mechanism over night and thoroughly wiping the parts in the morning. The kerosene cuts the dirt and lint which oil oftentimes only serves to clog the fine working parts. After each part is wiped off apply a little oil. If too much oil is used it will run down through the machine and soil the materials. Run the machine a minute or two to give the oil thorough circulation, and then wipe each part again. Your machine is then ready for use.

By all means heed the direction that came with the machine. Select the size needle best suited to number of the thread or silk used. Then adjust the length of the stitch. Some women never touch the tension, which should be regulated when changing from light to heavy material, or vice versa. The tension on heavy material should be much looser than on the fabrics. Always try out the stitch on



work well done affords ample compensation. When a machine is used daily it should have a little attention each evening or the next morning before using. And if the machine is used as the average woman uses it, it should have a thorough overhauling once a week.

Use only the best sperm oil, or the oil sold by the maker of your machine. Occasionally it is a good



a small piece of cloth before beginning work.

A combined sewing machine and motor is the most desirable type of power sewing machine, if the farm woman is fortunate in having a power line along the road and the house wired. It is better than the old peddling machine, but if you have an old machine, why not buy a motor? The cost of running these motors is no more than that for a 50 watt lamp, and they not only run your machine at the touch of the foot, but may be used to clean silverware, sharpen knives, whip cream and perform other little tasks that are irksome by hand.

After using a motor on your machine you will marvel at its conveni-

ence. To sew slowly, press the foot lightly upon the foot control, a little more pressure accelerates the speed, and still more pressure gives almost lightning speed.

With a motor the sewing machine is so easy to operate that a mother unable to run a machine by foot power may do all of her sewing at all times without a backache or distress. She will also find that the clothes she makes will last twice as long as those bought at the same cost.

Home sewing is regaining popularity since this wonderful little motor was devised and came into use, and the cost is so low that any mother can afford to possess one.

Putting the Physical House in Order

THIS is the season of the year to put the physical house in order. Plan a diet that will help overcome the lassitude of spring fever that seizes those who have partaken too easily of the overrich and heavy foods. Spring greens and early vegetables are now becoming seasonably priced, and the housewife should realize that even though they furnish little food value they are rich in mineral salts which the physical body requires during the spring months.

If the greens on the market are too high the farmer's wife need only use the dandelion, the watercress or the rowan, found in the yard and field.

Salsify, or vegetable oyster, is a good spring vegetable. Its flavor, somewhat resembling the oyster, appeals to many. It may be stewed or creamed. Following are three ways in which salsify may be prepared:

Stewed Salsify.

Scrape and cut into pieces an inch long. Cook in boiling water until tender, drain and add one tablespoon of butter, two teaspoons of finely chopped parsley, one-half teaspoon of lemon juice. Let simmer a few minutes until hot, take up in a deep platter and pour over it the following sauce:

Run through the coarse knife of a meat grinder one small onion, half of a small carrot, half of a small turnip, and four stalks of celery. Simmer in salted boiling water until tender, and drain. Reheat two cupfuls of medium white sauce, add a speck of nutmeg and a bit of cayenne, mix in the chopped vegetables, and pour over the salsify.

Salsify Salad.

Cook diced salsify, add equal amount of diced celery, and serve on lettuce leaf with mayonnaise dressing on top.

Scalloped Salsify.

Clean, scrape, cut into cubes and oil enough salsify to fill the dish selected. Butter the dish, put in a layer of salsify, sprinkle with paprika and pepper, then a layer of white sauce and a grating of cheese. Repeat until the dish is full, having a cream sauce and cheese on top. Brown in a quick oven.

In preparing salsify for any method of cooking, it should be scraped as quickly as possible, cut into pieces and put in cold water to which has been added two tablespoons of vinegar. This will keep it from turning dark.

Parsnips also are a very good spring vegetable and may be prepared in many ways.

Beef and Parsnip Stew.

Old fashioned beef and parsnip stew make a very substantial dish. Cut one pound of lean, round beef in half inch cubes, dredge with salt and pepper to taste and two tablespoonfuls of flour. Place in a kettle with three medium sized onions cut in rings, and brown quickly. Cover with two quarts of boiling water and let simmer two hours. Add four medium size parsnips, peeled and cut into cubes, and potatoes diced likewise. Simmer until the vegetables are tender. Add more seasoning if desired. Serve with dumplings, which most

housewives can make without a given recipe.

Baked Parsnips.

Slice the top part of cooked parsnips into three-quarter inch slices, or split the parsnip in the middle. Lay in a buttered baking pan close together, and sprinkle with salt, brown sugar and small pieces of butter. Brown in a hot oven.

Among the spring vegetables are rhubarb and asparagus. These may be prepared in different ways to suit the taste. Rhubarb sauce and rhubarb pie are well known to the average woman, but rhubarb tapioca is something different. To make this delicious dish carefully follow this recipe:

- 3 tablespoons pearl tapioca.
- 2 cups water.
- 2 cups diced rhubarb, peeled.
- 1 cup sugar.
- 1 tablespoon lemon juice.
- ¼ teaspoon salt.
- 1 tablespoon gelatin.

Soak the tapioca three hours in a half cup of the water, add the remaining water hot and cook 20 minutes in a double boiler. Then add the sugar, salt, rhubarb, lemon juice, and the gelatin which has been allowed to soften for five minutes in a little cold water. Cook until the rhubarb is tender and the tapioca clear. Pour into cups and let stand until cold, and serve plain with cake, or garnish with whipped cream or soft custard.

Most people prefer asparagus creamed or in salad. For some who do not, or like a change from the common methods of serving, asparagus and rice soup will appeal to the appetite.

Asparagus and Rice Soup.

To one quart of well seasoned soup stock add one cupful of water, one-half cup of rice, grated cheese, one small bunch of asparagus. Wash the asparagus, cut off the tough parts and reserve them for cream soup. Put the tips and the tender portions into the broth and water, boil till half done—about 20 minutes—then add the rice well washed, and cook until it is tender. Serve very hot and pass the cheese with it. This soup should be thick.

Asparagus Omelet.

- 1 cup cooked asparagus.
- 4 eggs.
- ½ teaspoonful salt.
- 1 tablespoon butter.
- 1 tablespoon water.

Few grains of pepper.
2 tablespoons grated cheese.
Beat the eggs lightly, add the salt, pepper, cheese and asparagus. Put butter in hot omelet pan; when melted turn in the mixture. As it slowly cooks, prick and pick up with a fork until the whole is of creamy consistency. Brown quickly underneath, fold and turn out on a hot platter.

TO HANG MY OWN SKIRT.

An easy way to hang a skirt evenly without the assistance of a second person is to open the dining table just enough to hold a piece of chalk and then slowly turn around with the skirt on, so that a white mark extends entirely around the skirt just below the hips. Then by measuring with a tape line a straight hem will be secured.

ROSECO BRAND

Food Products

The Standard
of Excellence
in Greater Cloverland



Follow the Sign of the Rose

Roach & Seeber Co.
Wholesale Grocers

CALUMET, MICH. MARQUETTE, MICH.
HOUGHTON, MICH.
IRONWOOD, MICH. WATERLOO, WIS.

For Every Home

*A table drink that refreshes,
but leaves no after-depression—*

Instant Postum

Much used nowadays instead of coffee as a breakfast beverage because of its similarity in flavor to coffee, but with entire absence of ill effect, since Postum contains no "caffeine."

Instant Postum is made quickly in the cup, with economy as well as convenience.

Sold by Grocers Everywhere

Made by POSTUM CEREAL CO., Inc.
BATTLE CREEK, MICHIGAN



Truly a Quality Coffee

*It is the result of twenty-two years
of careful and intelligent blend-
ing by coffee experts.*



INSIST ON THE GENUINE

ROASTED and PACKED BY

JOANNES BROS. COMPANY

GREEN BAY, WISCONSIN

CHILDREN'S FROCKS



No. 1.



No. 2.



As the month of May calls for so many summer clothes and our space is limited, I have designed and planned here a few dresses for all times. No. 1 and 2 can easily be made from some of mother's or sister's dresses. No. 3 may be developed for Sunday wear from an old silk dress with soe new ribbon plaited on for trimming.

No. 2 for the girl of 10 to 14 years can more easily be made from new material than old, but once in a while a girl of this age needs a whole new dress for party wear.

When bed time comes and the children have on their new summer pajamas designed after one of these patterns, how they love to have a pillow fight and frolic for a while. Children are never uncovered on the hot summer nights if clad in the new pa-

jamas designed for them instead of the old style night gown.

Watch the Pennies

but don't let them hide the dollars. A few cents worth of inferior flavoring extracts can spoil several dollars worth of other ingredients.

Van Duzer's Certified Flavoring Extracts

are preferred by those who realize that using the best is usually true economy. They have long been noted for their delicious flavors, purity, richness and strength.

Van Duzer Extract Company
New York, N.Y. Springfield, Mass.



FOR ALL TIMES



Will \$30 a Month Buy Food for Two?

CLOVERLAND Magazine came this morning. Now, Cloverland is a new magazine to us, and doubly interesting to me because it is a Michigan product. You see, I was "born in Michigan," at Niles. In looking it over I noted your article, "Will \$30 a Month Buy Food For Two?"

I have been a housekeeper for a good many years, but anything in the line of cookery rivets my attention at once, so I took more than passing interest in your article. I ran through and then sat down and read it all over good. You ask for suggestions, and I don't believe you have any idea what you've wished upon yourself. There are several things in this and I would change, were it mine.

The first thing I would suggest is the small matter of two eggs in the morning pancake. Yes, you did, you did two eggs. Now, good cakes can easily be made with sour milk without any eggs, for I do it myself. Make the batter of sour milk, flour, soda, salt and baking powder, beat thoroughly. Do not economize on soda, for often it is the secret of light, fluffy cakes. The milk is not sour enough a little butter substitute or cream will make them tender. Then, too, I would suggest a dish of oatmeal with the cakes. Lower cakes will be eaten, thus cutting down expenses and the work of baking the cakes.

To make oatmeal for two, use three-quarters of a cup of oatmeal. Put it in a granite pan, salt to taste, and add one-half cup boiling water. Do not stir, but let it boil hard for a few minutes, then cover and place where it will simmer.

Now, the two eggs may be used in some other way. However, if the head of the house must have eggs in his diet, slip one over on him by using the yolks only, and make this cake with the whites:

White Cake.

- ¼ cup butter.
- Scant cup of sugar.
- ½ cup milk.
- 1½ cup of flour.
- 3 level teaspoons baking powder.

Whites of two eggs.

This makes two layers, or a small loaf, and a small cake is large enough for two persons.

Butter substitute may be used instead of butter, and, of course, the amount of flour varies with the different brands, so it is always wise to test it before baking the cake.

No, I wouldn't use but the yolk of one egg in the cake. The other I would hold out to make salad dressing, or use in the potato cakes if I had to have them the same day I had boiled potatoes—which I probably wouldn't.

Instead of having boiled rice with gravy from the roast, I'd make a small pan of biscuits. Then, with a salad of some favorite sort, a slice of cake with the baked apple or other fruit, I would feel much better satisfied.

Then, too, while one-half of a cabbage would not be too much if boiled, it should be too much if served with vinegar.

Fried cabbage is nice for a change, and it requires very little "grease" to cook it. Put the amount of "grease" desired into the spider, add the cabbage shredded, then a small amount of water, and cover. Let cook until tender, adding more water if necessary, but having it dry at serving. Salt is added, of course. No cheese is allowed in the menu, but a small piece served with the apple pie would help out in case of a "company" dessert. Also, crackers and cheese seem to fit in at the end of some meals.

Another thing. French toast with two eggs for two people is one egg too many again. Not that I want the eggs banished, but used for something more tasty, as it were.

(Continued on page 46)



Lauerman Brothers Department Store, Marinette, Wis.

Modern Business Service

WE want Cloverland grazers and farmers to look at this store in that way. We are here to serve you carefully, courteously and whole-heartedly.



The Marinette Store
Whose Perfect Service by Mail
Reaches Your Very Door

You can purchase by mail just as satisfactorily as if you were in Lauerman's Store in Marinette, doing your buying personally. Your goods are shipped same day order is received.

YOU CAN SAVE TIME, FREIGHT
AND MONEY BY SENDING IN
YOUR MAIL ORDERS TO US.

It will be of great benefit to you to have your name on our mail-order list and receive price lists and quotations on whatever you need.



OUR BABY AND HIS HEALTH

WE HAVE always heard of some of the funny ways of doing things over in China. One custom the Chinaman has is to pay his doctor as long as he keeps well and to stop paying him if he gets sick.

Some of us have come to the conclusion that the Chinaman's idea is right. It is better to keep well than to get sick and especially do we think this of our baby. We might say a baby's whole life depends on his first year, his food and care.

About one out of every ten babies born in this country dies before it is a year old. But that record is better than it used to be years ago—and why, because:

1. Now mothers are learning to take care of their babies nine months before they come, by taking care of themselves.
2. More mothers nurse their babies.
3. Bottle-fed babies get cleaner and purer milk today.

4. More care is taken to protect baby against infectious diseases.

But still we must not let one out of every ten babies die. The mother is the natural guardian of her child and she must prepare herself to give her child the right care and proper food.

Whenever it is possible, a mother should nurse her child. If the mother does not have milk for her babe, or if her health does not permit nursing the baby, she need not worry, for by using a sanitary bottle with good cow's milk, she can rear her baby good-natured, healthy and strong, though great care must be taken to keep the nursing bottle and nipple absolutely clean, and the cow's milk must be pasteurized.

To pasteurize the milk put the quantity desired for a day or night in a glass fruit can and seal tight. Stand in a pan of cold water, allowing it to come to the boiling point, remove at once from the fire, cool quickly, and keep in a cool place.

When the food is prepared for the day, all the bottles should be well washed in hot soapsuds and then rinsed and boiled in clear water for ten minutes. Black rubber nipples should be used. They should be washed first in cold water, then in hot, turned inside out and thoroughly scrubbed with a brush and hot water, and allowed to stand in a covered bowl of cold borax water until needed. Nipples are spoiled by boiling. Three or four nipples should be kept in use on as many bottles. As soon as a child has finished a meal, the bottle should be plunged into cold water, and then filled with cold borax water and allowed to stand. There is much to be said on the feedings and the frequency of them, and next month we will help the mothers a little with this, as the proper feeding of a child in warm weather is what keeps him well.

The Baby's Bath.

The young mother will find bathing the baby a pleasure, if she will take pains to have the right things at hand when she begins. From the first day a healthy baby, if well, should be bathed every morning. A warm room, with temperature about seventy degrees F, and a large screen or covered chair to keep off draught, is best. Never bathe sooner than one hour after a meal, or just before taking baby out.

A folding tub of rubber is the best for baby's bath. Near at hand have a basket containing all the things I mentioned in last month's magazine for the baby basket.

Fill the tub with warm water, about 98 degrees. By gradually putting the baby in the water every day, he will love his bath and not be afraid of water as some babies I have known.

The Bathing Apron.

In giving the bath, wear a large outing flannel apron like one in illustration. Pin to the bib of this apron, using safety pins, a long soft linen towel.

The baby is now undressed and covered with the flannel apron. Bathe the face with clear water, using no soap, then wash the scalp and neck, rinse gently and dry thoroughly. The entire body should be washed by putting the hand under the bath apron, turning the baby gently in order to reach the back. After this, place the child in the tub and rinse thoroughly, using the sponge for this purpose or a fresh wash cloth. He should not remain in the tub longer than one minute at first. Lift him to the lap and fold around him a bath towel and pat him gently until dry. Remove the towel, keep him covered with apron, and dust him over with pure talcum powder.

(Continued on page 46)



One Trial of Grape-Nuts

will do more than many words to convince you of the goodness of this wheat and barley food.

But it's worth saying that Grape-Nuts contains all the nutriment of the grains, is ready to eat, requires no sugar and there's no waste.

Grape-Nuts is a Builder

Northern State Normal College

MARQUETTE, MICH.

New Buildings

Excellent Equipment

Splendid Faculty

College Courses leading to A. B. degree—Normal School Courses for teachers of all classes—Special Courses in Art, Music, Manual Training, Home Economics, Kindergarten and Commercial.

The school has had more calls for teachers than it can supply. Write for information and bulletin.

DORIS I. BOWRON, Secretary

JAMES H. KAYE, President

"M = B"
MADE BETTER

TRUE BLUE
LAUNDRY

The Concentrated Sprinkler top Bluing

Manufactured by

DAY - BERGWALL COMPANY
MILWAUKEE, WISCONSIN

MEMBER MILWAUKEE ASSOCIATION OF COMMERCE



Development Section

Of the Cloverland Magazine

Along the northern rim of the Great Lakes Basin—across the states of Michigan, Minnesota and Wisconsin—there is a great belt of undeveloped land.

A few years ago it was considered worthless—just stump land, no longer good for lumbering, and therefore useless. Today this area is recognized as the greatest frontier America has yet offered her people.

Clover is indigenous—therefore this country has been called "Cloverland"; but every other crop, native to the north-temperate zone, and every form of live stock, has been made to thrive in this new country.

Today there are many settlers, many fine farms, many thriving towns, and wonderful cattle and sheep ranches. There is room, on some 30,000,000 acres, for thousands of additional men and women, some of whom will surely achieve unusual success, and perhaps fortunes.

The Magazine is convinced that the Cloverland country has more real opportunities for farmer, rancher and business man than any other section of the United States today. But these opportunities must be carefully and soundly handled.

On the following pages you will find articles relating to this great cut-over country, known as "Cloverland." They are written by men who already live in the country, and who know it. The Magazine does not assume responsibility for all of the views or expressions included in these articles, recognizing that sometimes as individual experiences though truthfully set forth, may not be applicable to every other similar situation. However, the Magazine accepts statements only from men of standing and responsibility, and believes, therefore, that the following pages fairly reflect the conditions and probabilities of the North Country—"Cloverland."

"MILLION DOLLAR LAND CLEARING CONTEST"

By T. C. JONES, of Rusk County, Wis

THE "Million Dollar Land Clearing Contest" which is engrossing the attention of the people of Rusk County, Wisconsin, and has attracted so much attention throughout Northern Wisconsin and all the cut-over land and territory in Cloverland, is not an old fashioned log drive, but a drive that will spell doom to stumps, brush and windfall. It is an undertaking that will prove greater than the building of the Panama Canal, provided it preads to all of upper Wisconsin, which it is likely to do. And it will also spread into Upper Michigan and Northern Minnesota.

More than 100 representative men Rusk County held a meeting on March 3 for the purpose of inaugurating a land clearing contest. It was called the "Million Dollar Banquet." The contest that sprung into existence at this banquet will add \$1,000,000 to the value of farm land in Rusk County, hence the term "Million Dollar contest."

The contest is now well under way and it is proving a great benefit to the settlers in our county, and throughout Cloverland, as it is educating them in the best and cheapest methods of clearing land. A new era is opening up for Cloverland and it is good to be in at the beginning. Our contest is showing us the benefit and merit of the "get together" movement.

The psychological effect of the enterprise is decidedly noticeable. Some of our ministers even touch upon the subject in their sermons.

Some of our communities are getting together on roads. One whole town—the town of Flambeau—held a meeting and voted unanimously to donate six days per voter this summer on the roads. They have adopted the slogan, "Travel on Gravel."

At the land clearing meeting on March 3, \$10,000 were raised to launch the enterprise.

There are about 2,000 farms in the county, and the original plan was to clear about three acres on each farm, but no limit was placed upon the amount of clearing any farmer might want to do. Indications now are that these figures have run way with us, as the entire movement is assuming proportions not dreamed of by its originators. Two thousand acres multiplied by three equals 6,000 acres. What do 6,000

acres of cleared land mean to Rusk County?

Let us take for example one of the sure crops of Cloverland—potatoes. An average of 150 bushels to the acre on this new land would make a total of 900,000 bushels, and this amount runs into big figures in dollars at current prices. They would require 1,200 railroad cars to transport them. In this connection it might be said that Rusk County stood high in the mid-west Horticultural Show last autumn in competition with 3,500 entries from six states. This county took first prize and sweepstakes on Green Mountains, winnings on Burbanks, and took first, second and sweepstakes on ruta bagas.

More than \$100 per acre has been realized on clover seed from land brushed by sheep, the large stumps still remaining in the ground.

The dairy cow is supreme in Rusk County but many farmers are learning that a sheep is a good brusher. It is not necessary to remove stumps to obtain excellent returns, although maximum returns are not possible until the stumps are removed. Blast the stumps. The cost of removing stumps is a small fraction of the value of the land when cleared. An acre of land

in Cloverland can be cleared for about one-fifth to one-tenth of the price paid for cleared land in Illinois, Iowa and other midwestern states, and the soil is generally better rather than inferior.

These facts prove that the money spent in clearing our land is not an expense. It is an investment.

Some of our best pastures have never been plowed or seeded, and good pasture is the most perfect food for production of milk, meat and wool. Stock raising and dairying is the most profitable branch of agriculture, and the most economical meat and milk production is obtained from pasture. But we realize it is necessary to diversify and rotate, hence the Rusk County land clearing campaign.

For convenience the county is divided into eighteen districts, each district in charge of a chairman whose duty it is to furnish information con-



A Sure Cash Crop When the Land Is Cleared

cerning the contest, obtain new entrants, aid and encourage contestants in every way possible.

The campaign is managed and directed by our county agent, Capt. H. M. Jones, formerly of the One Hundred Forty-sixth Field Artillery and now captain of our home cavalry company. He is an extremely energetic young man, thoroughly equipped for the work. The immediate work of instructing farmers in the use of dynamite and laying out the work is in the hands of I. E. Lee Stewart, formerly in the U. S. service designated as the Chemical Warfare Service, Offensive Division. Both are full of determination and pep.

Following is the plan of the contest:

It is open to every farmer in the county. It makes no difference as to method used—the judges will take into consideration the kind of work done with the equipment used. Dynamite is furnished at cost, and the banks loan money to purchase dynamite at 6 per cent per annum interest.

Each contestant will be given credit for all the land he clears. If he announces his intention of clearing a given number of acres and clears only a part of the lot he will not be penalized.

To get into the contest the applicant fills out a registration blank, stakes out where he intends to commence clearing, and has two neighbors sign the registration blank, signifying



Clover Fields Like These Require Large Barns Like the One Illustrated to Hold the Crops

Ranches Ranges Farms

Any acreage you want,
Any easy terms you want,
Any way you want to buy,
Any kind of land you want,

**RIGHT NOW
WRITE NOW**

The County Board of Supervisors of Iron County, Wisconsin, wants practical stockmen to take up large ranches in their county, and will aid them in locating and financing. The County Board of Supervisors of Iron County, Wisconsin, wants experienced farmers to take up small or large acreages of the best hardwood land in the cut-over country, and develop them into paying live stock farms. The Board will help them find a good location close to local markets, on good roads and with railroad facilities.

**Ranches \$10 An Acre,
Farm Lands, \$10 to \$20 An Acre,
Ranges Free for Season.**

Any ranch in Iron County is within 200 miles of South St. Paul, and 400 miles of Chicago. Two railroads go direct to either market.

Any farm in Iron County has a local market within a few miles that will absorb all farm products at the highest market prices, because these markets are in mining or lumbering districts without developed farms to provide sufficient food supply.

This district is old in mining and lumbering, but NEW IN AGRICULTURE, and the County Board of Supervisors wants you to help them do the big job of converting the thousands of idle acres of cut-over land and pasture into productive fields, and in turn will help you get along.

If you want a good chance to make good, write to

DANIEL REID

Chairman County Board of Supervisors,

HURLEY, WISCONSIN

ing that they know where his clearing begins.

The executive committee will award the following cash prizes in each district:

First prize	\$100.00
Second prize	75.00
Third prize	50.00
Fourth prize	25.00
Fifth prize	15.00
Sixth prize	15.00
Seventh prize	15.00
Eighth prize	15.00
Ninth prize	15.00
Tenth to fourteenth prize, 100 pounds of dynamite each.	

Besides these cash prizes local merchants in each district are offering such prizes as a barrel of flour, registered calves, grass seed, dynamite and many other equally valuable prizes.

The grand county prize is a warranty deed to forty acres of choice Rusk County land, offered by the National Land Colonizing Company, Ralph S. Crowl, John S. Birdner and T. C. Jones. Several other county prizes will be announced later.

All land cleared this year up until Nov. 1, will be included in the contest. The land will be viewed this spring and the difficulty of the work estimated and graded.

The land clearing task in Upper Wisconsin may be divided into three main headings, brushing, stumping and breaking.

Under the heading of brushing, we would include the cutting, piling and burning of the brush, and the piling and burning or working up into kiln or fire wood of the down timber and windfalls. The cutting and working up of second growth into cordwood and bolts is also included and may become a source of revenue. In fact, brushing includes all that is necessary to be done to fit the land for stumping or for seeding.

Stumping would include the pulling or blasting of the stumps, their piling and burning, or utilization as firewood or for building fences. Any means of removing them from the field and getting it in readiness to plow, constitutes stumping.

The breaking of the land, or getting it under the plow would include the removal of stone in a field where this is a factor, the filling up of dynamite holes and leveling off of cradle knolls, and its subsequent plowing and preparation for a crop. Plowing between and among the stumps is also considered under breaking, but it is not entitled to as much credit as the breaking of a bare field.

A score card that will meet the requirements and be all inclusive must take into consideration the following:

1. It must give credit for every step in land clearing from the cut-over stage to planting of the first crop.
2. The difficulty of each task must receive proper credit.
3. The thoroughness of the work also must be taken into consideration.
4. The proper relationship between the values given for each factor of the work must be maintained.
5. The man working alone and with limited means must be given equal chance with a neighbor who has capital or help sufficient to do his clearing on a large scale.

A system of grading by means of which the work of one man as a land clearer may be favorably compared with that of another must take into consideration several factors.

1. The number of acres cleared. This does not mean that two, three or ten acres have to be cleared completely before you are given credit for the work. You will be given credit for the number of acres that you brush, stump or put under the plow.

2. The difficulty of the work. By this we mean whether or not your brushing is easy, medium hard, or difficult; likewise, your stumping and breaking. Difficulty under brushing is graded from 1 to 5; 1, meaning an easy piece of brushing, and 5 a very difficult one. Under stumping, difficulty is graded from 1 to 10, for in many cases, stumping will constitute the major portion of the work. Under breaking, difficulty is graded from 1 to 5.

3. The thoroughness of the work is also considered and graded from 1 to 3; 1 meaning a poor job, 2 a medium piece of work and 3 a good one.

4. The resources of each contestant will also be considered. By that we mean whether or not you have a team, how much help you have or can get, the amount of capital you have to work with, what sacrifices you have to make in order to get your land cleared. The aim in the contest is to give the little fellow, as we might call him, just as good an opportunity to win a prize as his more fortunate neighbor who has help and financial backing to carry on his work.

System of Grading.

	Brush- ing	Stump- ing	Break- ing
Acres	1-5	1-10	1-5
Difficulty	1-3	1-3	1-3
Thoroughness			

Let us apply this system of grading to a farmer, whom, we will assume, has completely cleared three acres. In this particular instance, the brush was very light and was graded under difficulty as 1. The stumping was very difficult, and there were a great many to the acre, so we have given him a score of 10 under difficulty. Under breaking he has been given a grading of 5 due to roughness of the ground, and the amount of stones and rocks that will have to be removed. Under thoroughness of brushing, stumping and breaking, we have assumed that he has done a first class job in each instance.

A Sample Score Card.

	Brush- ing	Stump- ing	Break- ing
Acres		3	3
Difficulty	1	10	5
Thoroughness	1	90	45
TOTALS			

GRAND TOTAL—144

Acres, difficulty, thoroughness under brushing, stumping and breaking will give you the value to the totals; addition of the totals under each heading gives you the grand total. There is no limit to the score that one can make. It is reasonable to expect the man with three grown up sons to do four times as much work as the man working single handed. He should be expected to do more. Just what ratios will be used has not been fully decided, however, this factor will be carefully considered by the judges reviewing the work.

All contestants as well as non-contestants are asked to keep a monthly time sheet. This is a record of the amount of time spent in clearing, and the progress you have made during the month.

Each month these records are to be sent in to the office of the Land Clearing Director at Ladysmith, so that the best work in each district may be printed and an idea of the progress of the contest may be ascertained.

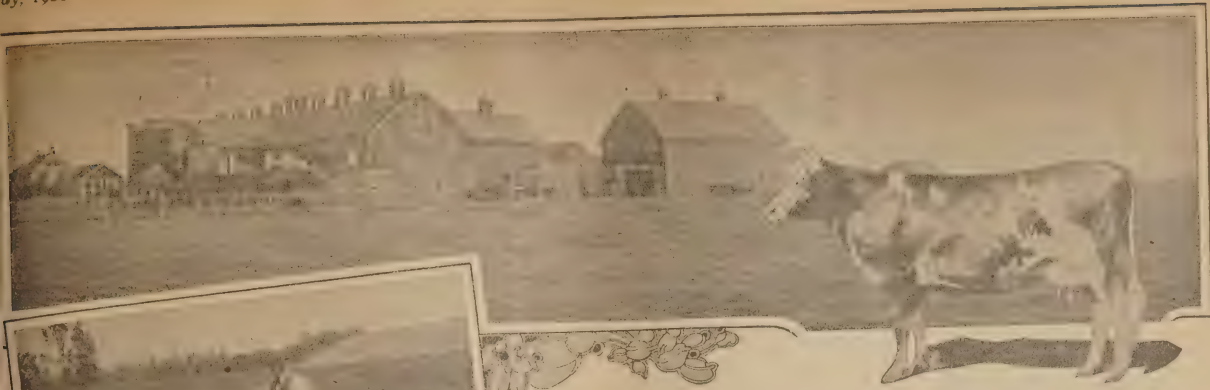
The work will be judged by impartial, competent judges from outside the county, and the prizes awarded at a monster mass meeting this fall.

Cloverland is undoubtedly the best live stock country on earth. We have climate, water and grass all suitable to the development of the highest class of animal life.

I believe that we are laying the foundation for a population that will not be excelled anywhere on earth, physically, mentally, morally. Is it not good to be in at the beginning?

SUGAR EXPORTS HEAVY.

Exports of sugar in December, 1919, broke all records for the month with the exception of December, 1915. The U. S. Treasury Department reports refined exports last December amounted to 99,189,088 pounds, or 49,594 tons. The exports in December, 1915, totaled 51,024 tons. Exports for the year were 737,849 tons, second to the banner year of 1916, and the second time in history that refined exports amounted to more than 700,000 tons.



Northern Minnesota Is Your Opportunity

If you have energy without capital you can succeed. What others have done you can do.

If you have energy and capital to add you can succeed more quickly upon the capital invested in Northern Minnesota than anywhere else.

Dairying and Clover

Natural advantages make the Lake Superior district the coming dairy section of the world. The dairy business has made remarkable growth in Northern Minnesota during the last ten years.

Greater Cloverland is an appropriate title. Clover creeps everywhere, it is a weed of wonderful value.

Grasses grow luxuriantly. The grazing season is weeks longer than anywhere else, longer than further north, longer than further south, the lake does it.

The 1918 Grand Champion Guernsey cow, of ten shows, including the Waterloo Dairy Cattle Congress and the National Dairy Show, is a part of one of the several nationally famous dairy herds of Northern Minnesota. The picture above is that of the Island Farm, the home of the nationally known Guernsey herd, including Imp. Bella II du Grand Fort, the 1918 champion Guernsey, owned by G. G. Hartley, of Duluth.

The products of the dairy always command good prices and particularly so in this section. Later the dairyman may make cheese, but at present he cannot afford to disregard the local market for milk and cream.

It is conceded that the opportunities afforded the dairyman are more certain in Northern Minnesota than any other line of agriculture, when everything is considered, soil, climate, crops and above all clover. Come and be convinced.

Potatoes and Root Crops

Potatoes are the settler's first crop. Under ordinary conditions potatoes yield 200 bushels to the acre. During the past year, exhibiting at all competitive shows in the Central West, St. Louis County took 125 prizes as against 113 prizes awarded to all competitors.

All manner of root crops grow in amazing abundance, making market gardening on small tracts close to the consuming markets of the cities a highly profitable and interesting occupation.

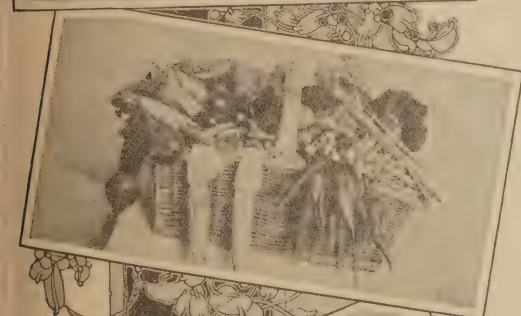
Sheep and Cattle Grazing

45,000 head of sheep in bands ranging from 1,000 to 13,000 in size were shipped onto Northern Minnesota lands last year. The great amount of natural feed, present everywhere, the large yield of clover running as high as five tons to the acre, and the ability to acquire large areas of good land at low prices is causing the Western grazer to look to these lands for the continuation of his industry.

Why You Are Interested

The country is adaptable to several classes of people, who for various reasons are desirous of making a change. First, the renter who finds the purchase of lands in older settled communities impossible and yet is anxious to secure a home of his own. He wants the rise in value of the land that has made his landlord wealthy. Second, the farm owner, who finding the high price of his land has made it practically impossible to secure more than a very meager net return on his investment, has sold his farm and now seeks a new location. Third, the immigrant who is looking for a new home. Fourth, the office man who sees nothing ahead but his salary and who is among the great multitude who want to break into business for themselves. Nowhere can this class of people accomplish more with their money. Fifth, is a great class of people who are overworked or unemployed who will find here a means of securing a living and rapidly develop into land owners. If you would like to know more about these lands, write

COMMERCIAL CLUB OF DULUTH, Duluth, Minnesota



\$35,000 for Development Measures

By JOHN A. DOELLE

Secretary-Manager Upper Peninsula Development Bureau

"THE Development Bureau out for a cool thirty-five thousand. Whew! That's quite some heap. And they're going to tax the big industries to get it. What's the big idea anyway? Haven't we got enough 'taxation' without"—etc., etc.

And the rest was lost in the lusty puff of a straight Havana. It happened in the smoker of the North-Western, and, strangely, the Bureau's secretary-manager was the unobserved listener. The speaker was an official of one of the "big industries"—lumbering, and, incidentally, that particular branch figures its capital with five ciphers on the no' side of the decimal. Reference to the Bureau's assessment list shows that this particular firm was asked for \$25 to help support the Bureau for the coming year.

Well—possibly in his own mind that man was justified. Thirty-five thousand dollars. "Quite some heap," sure enough—for some purposes. Thirty-five thousand dollars would buy a fair house, a not-half-bad automobile and possibly a good horse or two. That amount would cover son's annual tuition quite nicely, or would keep the baby in shoes—for a week or two. Not much longer though, at the present rates.

But, after all, is \$35,000 a year exorbitant for the demands which are being made upon the Upper Peninsula Development Bureau of Michigan? Were the results achieved last year adequate compensation for the \$20,000 spent? Would the extra \$15,000 be "worth while?"

It's true—the Upper Peninsula Development Bureau is out for a 1920 subscription of \$35,000, about \$15,000 in excess of any previous annual maintenance fund. And the plan adopted is exactly as the innocent gentleman in the smoker described it—to levy an assessment upon the large industries operating throughout the peninsula.

It does not mean, however, that the industries are going to be asked to support the Development Bureau. The fifteen counties in Cloverland, and some seventy-five county, municipal and private organizations, as well as a large number of individuals, are on the subscription list, and have been active supporters for years. It's the extra \$15,000 that the industries are going to be asked to take care of, and it is the confident belief of the officials of the Bureau that they will come forward and respond.

And again the legitimate question is—why is the Bureau justified in levying this assessment upon the industries? What has the Bureau done—what can it do for Upper Michigan's industries—mining, lumbering, manufacturing, etc.?

Well, let's see.

Take lumbering, for instance. There are hundreds of sawmills in operation throughout the Upper Peninsula of Michigan. Many of these have been buzzing year in and out for the past twenty years or more. Millions of acres of virgin forest have been cut away. What is the result? The soil, opened up to the sunlight, and fed by the natural fertility from beneath and the temperate climate and moderate humidity from above, blossoms out in hay, grass and clover. True, the stumps are there, but so is the grass, and herein is created a situation known only to the forested regions of the globe—millions of acres of so-called "cut-over" land, left idle by the woodman's axe.

Idle, but by no means "waste." It is estimated that here in Cloverland there are over 8,000,000 acres of cut-over, undeveloped land awaiting improvement. The lumber companies own most of it. What is to be done with it? In its present condition it is not worth more than from \$6 to \$12

per acre. The same land, plowed and seeded, would sell for from \$75 to \$100 per acre. Then what is the answer? Development—Colonization—Settlement—Upper Michigan must encourage the small farmer, the man who will come in with his plow, his rifle and his hoe and "remake" our idle areas. It is to the small farmer that Cloverland must eventually look to the utilization of this vast acreage of idle land.

Very well, but how is this to be done? And herein lies the function of a development organization in Upper Michigan. And it is precisely along these lines that the Upper Peninsula Development Bureau has been hard at work for the past several years—working to encourage the home-seeker, the small settler, to make his home in Cloverland. And, although it has been pretty much of a "one-man" job from start to finish, results have been secured. Within the past three years alone about 100 new settlers, with approximately 55,000 head of live stock have arrived to settle in Upper Michigan. About twenty-five sheep and cattle ranches have been started, and not a few have gone to farming and dairying.

Here, then, is the possibility of the Bureau to the lumberman—the utilization of this vast acreage of idle, cut-over land.

"Well, that sound's reasonable," you may say, "but how on earth can the Development Bureau help the mining interests. We're established; we're working your natural resource and we aren't interested in either lumbering or farming."

I have often wondered if a census were taken of all the men employed directly in the mines throughout this region, how much of that labor would revert back, either directly or indirectly, to the pioneer farmer.

As nearly as I can judge, from observation and inquiry, the farm is the nearest auxiliary factor to the mine, and where there are mines there are almost bound to be farms. Some companies encourage farming, to a certain extent, among their employees. It is realized that where there is a plenty of the necessities of life there is satisfaction among the working classes. Productive farms make for decreased costs of living, and the miner who can come home to the home-grown dinner is happy indeed, and equally fortunate. Here, then, is the possible function of a Development Bureau to the mining interests—encouraging farming in the regions occupied by the mines. This may either be done among the employees themselves, or by directing homeseekers to the fertile farming regions which surround practically everyone of Upper Michigan's mining locations.

The farm, too, is looked upon by the mining interests as a sort of labor reserve supply, and not infrequently has it been found necessary to draw from the farm the labor required to operate the mines at full time.

Working for the betterment of the working classes therefore is the possible function for the Development Bureau as an auxiliary force to the mining interests and surely this factor is vital in any industry.

The banks, too, are included on the list of industries and professions to be assessed. There is little argument regarding the value of the colonization movement to the banks. More farmers means increased business and elevation in land values. The effect on the banking interests is automatic, since any force which tends to economic betterment or improvement finds its benefits, ultimately, in the bank. This has already been demonstrated in the institutions located

(Continued on page 48)

These companies were the first to bring cattle to its cut-over lands, and carry on profitable and successful grazing in Cloverland.

WE offer the western grazers their choice of 75,000 acres of cut-over lands in Cloverland; 25,000 in Northern Michigan; 50,000 in Florence and Forest Counties, Wisconsin.

Several ranches were selected and taken over last year by well-known western cattle and sheep men.

Write us for particulars or come and see these lands for yourselves.

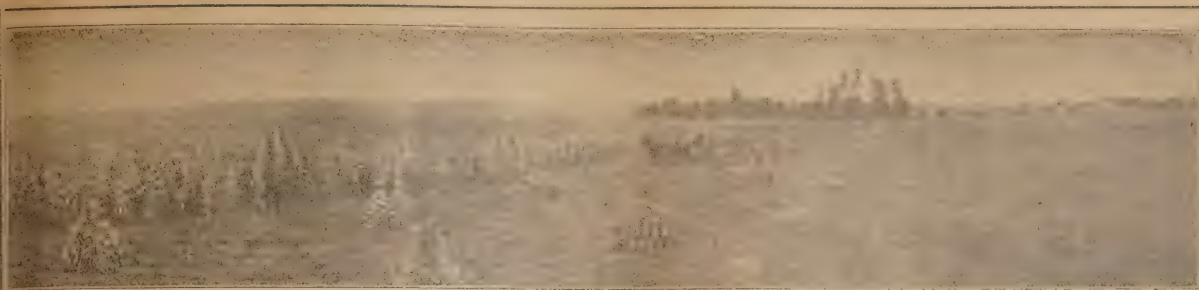
J.W. WELLS LUMBER CO.
MENOMINEE, MICH.

GIRARD LUMBER CO.

J. W. Wells, President

DUNBAR, WIS.

MENOMINEE, MICH.



The Transformation of Cut-over Land Into Valuable Farm Land.

Gogebic County, Michigan Offers YOU—

UNEXCELLED clover and blue grass growing and farm lands are to be had here in large or small tracts.

Several 1,500 acre, 3,000 to 8,000 acre tracts are available. 50 per cent of these lands are burnt over and 30 per cent of them are open with an abundance of pasturage for both cattle and sheep.

Transportation facilities are good. The C. & N. W. and the D. S. & S. course the entire length of Gogebic County, providing excellent unloading and loading opportunities.

Nearly all tracts lie adjacent to the Cloverland Trail and other splendid roads. Plenty of clear spring water.

Green Bay, Wis., St. Paul and Chicago, 200, 225 and 400 miles distant from Gogebic County, furnish the markets. Shipping facilities good.

These lands are rolling with little if any swamps. Small winding streams course through most of them.

Good roads intersect at frequent intervals all through the county. Our school system is the best that we can make it.

The local markets of Ironwood, Bessemer, and Wakefield and other smaller cities and villages furnish good markets for all farm products. Our clay loam soils are highly productive. The proximity to busy, bustling mining cities of 20,000, 6,000 and 3,000 is a natural asset.

The undersigned will put you in touch with land owners or their representatives, show you the county and see that proper unloading chutes, etc., that you may desire, are ready for you upon your arrival.

We believe in our lands and shall render you all the service at our command. A postal will bring you an answer to your inquiries.

*A Never-failing Range That Is Never Overcrowded
May Be Found in Gogebic County, Michigan.*

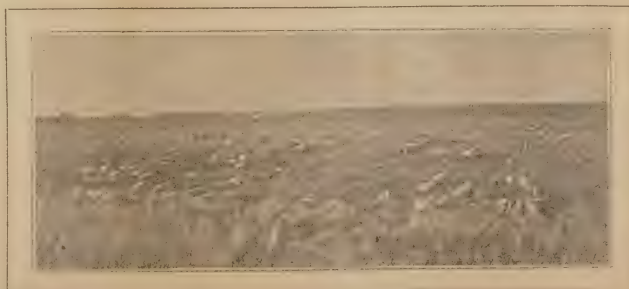
ADDRESS

C. E. GUNDERSON

County Agricultural Agent

IRONWOOD

MICHIGAN



Would This Ranch Suit You?

5,000 Acres

Heavy timothy and clover range; pure water streams and lakes; camp buildings for herdsmen; barns and sheds for stock; 300 miles to Chicago market; 270 miles to St. Paul market; ranch 4 miles from railroad.

LOW PRICE EASY TERMS

PERSONAL INSPECTION URGED

THIS is a splendid opportunity for a real stockman who wants to establish a permanent range. This range consists of cut-over hardwood land, which is adapted for all field crops when cleared of stumps. The brush and slashings have been burned off and there is now a heavy growth of sun-nurtured clover and timothy, with a sprinkling of blue-grass, the kind of feed that puts on fat and shapes stock for late summer or early fall market if pastured early in the spring. All parts of the range have plenty of good, pure water in small streams and lakes.

Write at Once for Terms

This proposition will not be on the market long because our price and terms are so liberal and the range is in such excellent condition for profitable grazing that it will be snapped up by some stockman who is interested enough to visit the place and see for himself. A post-card will bring you full particulars.

Address

SAWYER GOODMAN COMPANY
MARINETTE, WISCONSIN

Or

GEORGE H. HEDQUIST, Supt.,
GOODMAN LUMBER COMPANY
GOODMAN, WISCONSIN

The "Success Belt" of Canada

AFTER three years spent in the so-called "success belt" of Canada, Joseph P. William H., and George B. Kutina, brothers, have arrived in Cloverland in search of a new home and new pasture for several hundred head of live stock. The three brothers spent a part of last week in Marquette, in conference with John A. Doelle, secretary-manager of the Upper Peninsula Development Bureau, and they have already looked over several desirable locations. They declare that the land they have seen thus far surpasses anything in grazing or farming lands they have yet encountered.

Joseph, the oldest of the brothers, gives an interesting account of their experience in Canada. "Possibly we were trailed by a 'jinx,' and possibly our first selection was unwise," Mr. Kutina declared, "but at any rate we seemed to buck hard luck from the start. We went to Canada direct from Iowa early in 1917, and located in the Rimby district, Alberta. A tempting advertisement had attracted our attention to this section. Rimby is in the heart of this so-called 'success belt,' comprising the three provinces of Manitoba, Saskatchewan and Alberta, and though everything looked favorable when we started in we wound up our experience there with about three per cent success.

"Frost, hail and drought, are the three factors which combined to destroy every effort we put forth to make the thing a go. It seemed that just on the eve of harvesting time, a long would come an early frost, or a sudden hail, and the next morning would either find our crops a mass of blackened weeds, or laying across the road, in our neighbor's yard—blown there by wind and hail.

"On May 5th, last, thousands of cattle and sheep were lost during a

heavy hail, wind and rain storm, and our ranch suffered with the rest, have seen cattle caught in those driving storms and in their mad rush escape, pile headlong against poles and fences, killing hundreds of head before they could be rounded up.

"It may be, as I have said, that we were particularly unfortunate, but rather believe that Canada, and great organized forces within the nation, are sadly over-estimating possibilities of their undeveloped, partially developed regions in the great advertising campaign which they are now carrying out. I would not venture the statement if we had not given the region a thorough trial, but I believe that my two brothers and myself put just about into the proposition that any three men possibly could, and we have come to the conclusion that if the land isn't built to produce, no amount of preparation or toil can make it produce—and that if weather conditions are persistently unfavorable, it is little short of hazardous to attempt a further investment in that particular proposition.

"This is our first trip to Cloverland. It looks good. The proposition we have been offered are reasonable and I believe that if we three, half the effort into a Cloverland ranch or farm that we put into our Canadian property, we will make good. At any rate we are here to give you country a thorough trying out, and you may be sure that we will not be satisfied of its success or failure until we have definitely determined what we can do by good hard work."

The Kutina brothers are residing temporarily with relatives in Esnaba. They are three "huskies" with splendid physiques, and apparently well equipped to give any man size job a thorough work-out.

OUR BABY AND HIS HEALTH

(Continued from page 40)

hair should be brushed and the mouth wiped out with a small piece of absorbent cotton dipped in borax water. In fact, the mouth should be washed out at least three times a day. The eyes should be washed with a mild solution of boric acid, always using a fresh piece of cotton for each eye.

To dress the baby, put the band, shirt and diaper on, then the socks, and flannel skirt. This should be turned over the feet and pinned with safety pins. Dress in sacque or wrapper for warmth. Always put a baby's dress on over his feet.

A baby should sleep by itself from the time of its birth. It should not sleep with the mother or nurse. A

young child is very likely to be smothered sleeping with an older person, and moreover, it is very unhealthy from every standpoint.

A clothes basket enameled with white paint and padded up on the inside with a soft pillow for a mattress, makes a very good baby bed. This should be placed on a large chair or low stand, never on the floor. If a man of the house is enough of a carpenter to make a standard on wheels to which the basket can be nailed it can be rolled from one room to another and is a very convenient thing for the mother. Give the baby a little fresh air every day. Next month we shall take up the feedings for a small baby.

Will \$30 a Month Buy Food for Two?

(Continued from page 39)

If the young lady bakes her own bread—as so many do not—an occasional breakfast of oatmeal, fresh bread, butter and coffee, with the fruit would be very good, or an egg might be added to this for Sunday morning breakfast.

Beans once a week during cold weather are all right if one is fond of them, but in summer they sort of pall. I might add that most men prefer salt pork cooked with the beans in place

of bacon.

If one should believe half one reads, butter is a very necessary article in the diet on account of the vitamins. Perhaps we can squeeze out a pound occasionally for table use.

I could say a great deal more but in view of the avalanche that will swamp over you, I forbear.

Very cordially yours,
MRS. MAY WILLSON
Route 1, Mora, Minnesota.

Ha Ha! Haw Haw! Hee Hee!
Our coal's to cost a fearful price. Ha!

We'll pay a whole lot more for a Haw! Haw!
And higher taxes—ain't that a Hee! Hee!
Now don't say things will cost more.

(We got the giggles once before)
We'd have hysterics—kick the floor—Tee, hee! Har Har! WOW WOW
—N. H. in the Brooklyn Eagle

Cheerful Charlie

CHARLES M. Schwab tells us to laugh at present-day troubles, so let's take our cue from Charlie Schwab.

And join the chuckling, laughing mob—

Ha! Ha! Bread's up another cent;
Ho! Ho! The landlord's raised the rent;

Hee! Hee! We'll soon be in a tent.



Consideration No. 5

In Weighing the Evidence of Northern Minnesota Lands

*How much
Land do
you require
for your
Ranching
or
Farming
Operations
?*

OUR LARGE OPERATION

makes it possible to offer for your selection many tracts ranging in size from a half a section to a township. Any sized tract from

320 to 23,040 ACRES

There is opportunity for the small and the large operator in this fertile empire of Greater Cloverland without either interfering with the other. Opportunity for a man who seeks a home and a bank account. A guarantee of comfort in old age. Opportunity for a man to engage in large sheep or cattle operations without trespassing upon the land of another.

Be it large or small, there is opportunity today to make deliberate selection in several choice localities. But, you can't make a decision at home—you must with your own eyes see this land of plenty, the land of the

BIG RED CLOVER

We invite you to write or come and see us. In either event you will get the facts. We consider them good enough.

CLOQUET LUMBER CO. NORTHERN LUMBER CO.
JOHNSON-WENTWORTH LUMBER CO. Cloquet, Minn.



250,000 Acres

unimproved Cut-over Lands

For Sale

in Tracts to suit
the purchasers.

Located in four-
teen counties in
Cloverland — the
Upper Peninsula
of Michigan.

Prices:

\$5 to \$15
per Acre

Terms are reasonable

Write me for definite quotations, maps, etc.

J. M. LONGYEAR
MARQUETTE, MICHIGAN

\$35,000 for Development Measures

(Continued from page 44)

near the sites picked out by the one hundred or more grazers who have settled in the region during the past three years. It is an undisputed fact that the bank is probably the most direct beneficiary of the development movement, and these institutions, therefore, should come forth wholeheartedly in support of any organization devoted to the betterment of the region.

In a like manner, also, the Bureau has arranged a schedule of assessment covering real estate dealers, doctors, lawyers, hotel and garage keepers, and various other classes of industry.

The hotel and garage keepers, particularly, may expect almost direct returns from their investment. Many of them have already realized the benefits from the rapidly increasing tourist traffic to Upper Michigan, due, in a great measure, to the extensive advertising and publicity campaign carried out each year by the Bureau.

Again, then, and quoting the gentleman in the smoker, "what's the big idea, anyway?"

Let's take the tourist traffic alone, and estimate its cost to Upper Michigan and the Development Bureau, based on figures for the year 1919. To begin with the Bureau contracted with three well known road route guides for advertising space—the Automobile Blue Book, King's Guide and the T-I-B Route Guide. A two-page, six-colored insert in the Blue Book, appearing in every volume which comes from the publishing company's press this year, cost just \$2,400. Through the new system devised by the Blue Book Publishing Company, Cloverland this year is rated as one of the six or seven popular touring objectives in the country, and enjoys equal place and space with such resorts as Florida, California and the Grand Canyon of Colorado. A two-page spread in King's Guide will, when completed, cost another \$500, which we include in last year's expenses since the contract was made last fall, and for similar space in the T-I-B Route Guide, of Kansas City, Mo., the Bureau is paying approximately \$300.

So much for the route guide advertising. In addition the Bureau negotiated with William K. Gibbs, formerly associate editor of Motor Life and now a "free lance" in the city of Chicago, to make a trip to Cloverland and write a series of stories covering the various features of appeal to the tourist. Mr. Gibbs came, wrote about eight very excellent articles covering practically every section of the country, and has arranged to have these articles published in several of the leading out-door and motor publications throughout the country. The service was secured at a cost of \$1,500 to the Bureau. It is splendid advertising—probably the best, from the tourist viewpoint, that could be secured for that money.

Again, early last summer the Bureau arranged to have a special tourist edition of Cloverland Magazine mailed to about 14,000 prospective tourists throughout the west and middle west at a cost of approximately \$300.

Ten thousand tourist booklets were printed and distributed at a cost of about \$800. A new tourist booklet, now on the press, and, as a result of the marked boost in printing rates, will cost in the neighborhood of \$1 for printing alone, exclusive of distribution.

Figure it up—approximately \$7,000 for the tourist traffic alone. Is it worth while? Fairly accurate reports from hotel, garage and shop keepers throughout Cloverland estimate that the 12,000 or more tourists who motored to this region last year went away leaving \$440,000 somewhere in Upper Michigan. It is, indeed, a good investment, and too much stress cannot be placed on Upper Michigan's tourist traffic.

Then there is the grazing and farming advertising—probably second in relation to the Bureau's finances. The energetic campaign which has been continuous with the Bureau since May 1917, is a constant drain on its finances, and, with prices of practically every commodity or utensil which the Bureau uses in its work steadily mounting, and even now reaching to a new high mark, it is easily understood that either the scope of the work must be cut down, or more money provided.

At any rate, we're going to give it a try-out. If we fail—well, so much the less will we be enabled to do this year. If we win out, then we will make every effort to demonstrate to the industrial classes supporting us that we are sincere in our purpose to better their condition and to create, generally, a more satisfied and contented atmosphere among the working classes throughout Cloverland.

But here's regards to the gentleman in the smoker. He gave us something to think about, and, in fact, prompted this partial explanation of the reasons for our boost in subscription. We will try to show him, too, that we fully realize the necessity of backing in this day and age—whether it be financial or spiritual—and we hope the day is not far off when he will light up another Havana and murmur:

"Uh, huh—I get the idea now. Very good, very good."

Cloverland is now pretty well advertised and the assured tourist travel this summer will demonstrate that "it pays to advertise."

\$2,656,336 PAID AT ANGUS SALES

At 114 sales of Aberdeen-Angus cattle in the United States during 1918, 5,338 pure-breds were sold for \$2,656,336, an average of \$511.59. This was a gain of \$111 per head as compared with the year 1918.

WHAT THE

I. Stephenson Company Trustees

WELLS, MICHIGAN

Offer to Homeseekers on the Sunny Side of
Cloverland, the Upper Peninsula of Michigan

—Choice of 400,000 acres of land at prices ranging from \$20 to \$30 an acre for cut-over land.

—A climate the same as upper New York, northern South Dakota and central Minnesota—this district is 600 miles south of the much advertised wheat belt of Canada.

—A variety of soils fit for all crops grown in the north temperate zone.

—Good roads, good schools, good water and climate.

—Home markets that now are forced to depend on outside communities for much of their food.

—Railroad service that brings 10,000,000 people within a night's ride for farm products, and the equal of that afforded the farmers of Indiana, Illinois and Iowa.

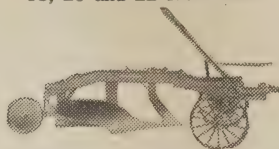
Fruit, Dairying and Live Stock,
Truck Gardening, Grains,
Root Crops

—An unsurpassed fruit country, protected by 1,000 miles of shore line along Lakes Michigan and Superior—a practical insurance against frost damage. A choice of five lines of farming.

Sheldon Bros. Company

Northern Minnesota
Farm Mortgages
Negotiated for
Investors

LA CROSSE
TRACTOR GRUB PLOW
For the Heaviest Work
18, 20 and 22 Inch Sizes



LINDSAY BROS. CO.,
Farm Machinery Minneapolis, Minn.

Hudson Barn Equipment
Hudson Haying Tools

Used Made
In In
Cloverland Cloverland



HUDSON MFG. CO.,
Janesville Minneapolis De Pere

LANDS

20,000 Acres in the Mille-Lacs Lake region—Mille-Lacs, Morrison and Aitkin Counties. The stockman's paradise of Minnesota. Grass in abundance, blue joint and reedtop, five to six feet in height, timber loam, clay subsoil. The greatest grass and clover producing district in Minnesota. Forty acres to a section. Easy terms. For particulars, write

E. L. TRASK,
104 So. 4th St., Minneapolis, Minn.

FOR SALE

Ten thousand acres of choice land in Itasca County, Minnesota. Fine soil, good roads. Will sell in small tracts. Easy terms. Address

B. B. SHEFFIELD
922 Flour Exchange,
Minneapolis Minnesota

PILLSBURY LAND SYNDICATE

own and offer for sale in tracts to suit 50,000 acres choice cut-over lands in Aitkin, Cass, Itasca, and Hubbard Counties, Minn., near good markets and schools. \$12.00 to \$20.00 per acre on very liberal terms. Send for lists and maps.

1227 Metropolitan Life Bldg.,
Minneapolis Minnesota

\$1.50 per acre cash, balance on or before 20 years, 5% interest. Minnesota "cut-over" land in the CLOVER district. For sale by owners. Write for list.

Crookston Lbr. Company,
906 First National-Soo Bldg.,
Minneapolis, Minn.

MINNESOTA HOLSTEINS

lead the world for size, type, health and production. For definite information on the world's greatest cattle, write the

MINNESOTA HOLSTEIN FRIESIAN
BREEDERS ASS'N.,
406 Market Bank Bldg., Minneapolis

RED RIVER LUMBER COMPANY,

807 Hennepin Ave.,
Minneapolis Minnesota

DEALERS IN

Northern Minnesota
Unimproved Lands

Write us for descriptions and terms

MINNEAPOLIS—

The Northwest's Supreme Market

Cloverland Residents:

Farmers Everywhere:

If you need data

On Soils,
On Seeds,
On Farming,
On Anything,
Write Us.



If you need information

About Cloverland's
Unparalleled
Opportunities,
Drop Us
A Line.

We Are Ready to Be of Service to You.
When In Minneapolis Give Us a Call.

Minneapolis Civic and Commerce Association

1254 McKnight Building, MINNEAPOLIS, MINNESOTA

convenient!



For Ditching

Inserting in holes in the ground a number of cartridges primed with electric blasting caps, connecting the cap wires with a blasting machine, thrusting down its handlebar and releasing the sudden strength of twice ten thousand men—that's ditching the modern way with



Red Cross Dynamite

Seventy-five million acres of swamp land in the United States lie waiting to be drained, and on nearly every farm there are stumps and boulders to be removed, trees to be planted. Put this Giant Farm Hand to work for you. If your project warrants, we will send a demonstrator to show you the safe, easy, inexpensive way of doing your work—the Red Cross way.

See your Dealer. In any case, find out what Red Cross can do for you—and how. Write for "Handbook of Explosives" today.

E. I. du Pont de Nemours & Company, Inc.
Sales Dept.: Explosives Division
Wilmington, Delaware



A Clover Field That Ought to be "Hog Downed"

Grow Pork—Don't Build It

(Continued from page 10)

paring skim milk with tankage, 100 pounds of skim milk is worth fully half as much as a bushel of corn, when only enough skim milk is fed to balance the ration.

In order to determine the amounts of skim milk needed to balance the ration when shelled corn and barley are fed in dry lots, tests were carried on with the following results: Pigs up to 50 pounds, 6 to 4 pounds of skim milk for each pound of corn eaten; pigs weighing 50 to 75 pounds, 4 pounds milk per pound of corn; pigs weighing 75 to 100 pounds, 3 pounds milk; pigs weighing 100 to 150 pounds, 2.5 pounds milk; pigs weighing 150 to 200 pounds, 2 pounds milk; pigs over 200 pounds, 1.5 or even 1 pound milk per pound of corn.

Pigs fed corn on good pasture will need only about half as much skim milk for each pound corn. Where barley is fed in place of corn, only about one-half to two-thirds as much skim milk is needed for each pound of grain. If the above amounts of skim milk are available, there is no use of adding any other protein-rich feed, as the pigs should make good gains. But if sufficient skim milk is not on hand, it will pay to feed a small amount of some other supplement, like tankage, linseed meal, or wheat middlings, to balance the ration properly.

The results of these tests show also it is wise in winter feeding to let the pigs have what alfalfa or clover hay they will eat from a suitable rack.

Buttermilk has practically the same chemical composition as skim milk and has proven an excellent feed. If no water has been added it is fully equal to skim milk for pig feeding.

Results of two season's tests show that although whey contains but .2 per cent protein, this protein was found to be the very kind needed to balance barley for pork production. With feeds at prices mentioned, whey was actually worth 49 cents per cwt., compared with tankage. These trials show that whey and corn, or probably even whey and corn, make an excellent ration for finishing well-grown shoats, for younger pigs it pays to balance the ration better by adding a little protein-rich feed. It is planned to carry on other trials to determine the exact amount of such supplements for pigs of various ages.

While wheat middlings and linseed meal are perhaps the protein-rich purchased feeds most commonly used in Wisconsin for swine, the tests almost without exception showed poor results where either of these feeds were fed to pigs in dry lot as the only supplement to corn or barley.

However, where fed on pasture or with tankage, skim milk, buttermilk or whey in dry lot, good results were obtained. When fed on pasture middlings was worth \$74.00 per ton, while in dry lot it was worth but \$17.93 per ton when compared with tankage at \$115.00 per ton.

The object of these tests was to determine the relative value of barley and corn where self-fed by modern methods. Of tremendous importance to Wisconsin farmers is the fact that good quality barley has proven to closely approach corn in feeding value, pound for pound, not only for swine, but also for other classes of stock.

It was brought out in the tests that pigs cannot be trusted to balance their

Choice Cut-Over Hardwood Lands

Especially adapted to grazing and general farming, located on trunk line railways twelve hours from Chicago markets. For sale, in small or large lots, at reasonable prices, terms to suit purchasers. For particulars write

The Northwestern Cooperage & Lumber Co.

GLADSTONE, MICHIGAN

Improved LANDS Cut-over VAN ORDEN BROS.

Houghton

"Cloverland"

Michigan



Feed and Type are Present, but Poor Ancestry is Shown by the Runt

ration when self-fed ground bar- and tankage in separate compart- ments. The results so far show that following amounts of tankage are cient for barley-fed pigs not on ure and receiving no other pro- rich feed:

pigs weighing up to 50 pounds id be fed 14 to 11 per cent tank- and the balance barley; 50 to 75 and pigs 11 to 8 per cent tankage; o 100 pound pigs, 3 to 6 per cent tankage; 100 to 150 pound pigs, 6 to 4 cent tankage; 150 to 200 pound , 4 to 3 per cent tankage, and 200 50 pound pigs, 3 to 2 per cent tank-

pigs fed barley on good pasture d but little or no supplement such ankage after they reach 75 pounds. o that weight feed only half the unt of tankage advised above.

he following are conclusions ar- d at in the barley test:

Barley is an excellent feed for e, whole barley being worth only er cent less than shelled corn 100 pounds.

At present prices corn is cheap- eed than barley.

Barley should be ground for pigs. For fattening pigs self-feed the and barley, but don't self-feed the age. Mix the barley and tankage e proper proportion.

ote: In these trials feed was val- as follows: Shelled corn, \$1.39 bushel; whole barley, \$1.38, and

ground barley, \$1.43 per bushel; tank- age, \$1.15; wheat middlings, \$52.50 and linseed meal, \$31.50 per ton. Skim milk is valued per 100 pounds at half the price of shelled corn per bushel 69.5 cents and whey at 30 cents per cwt.

The above tests were conducted by Profs. F. B. Morrison, G. Bohnstedt and J. M. Fargo.

The importance of pasture crops in the ration for economical production of pork is no longer a myth. Numer- ous experiments carried on for four years at the Wisconsin Experiment Station show that far greater gains are made on a given amount of con- centrates when fed to pigs on pasture than to those not on pasture. Not only are cheaper gains made but pigs are kept in a healthier condition.

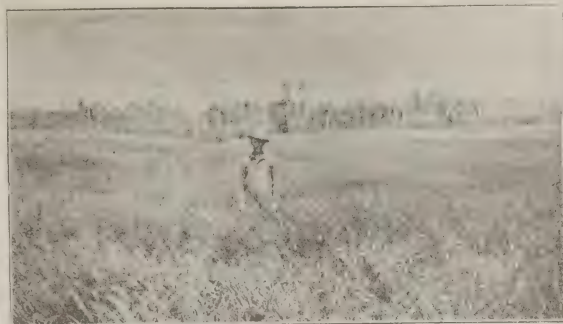
Pigs on pasture were found to be more than twice as profitable as those fed off pasture. Red clover, Wiscon- sin's most dependable legume crop re- turned on an average for the past three years of \$87.99 per acre over cost of the concentrates (corn and tankage) fed in addition. Returns for alfalfa were \$99.12 per acre. The num- ber of pigs carried per acre was 16.7. In these trials the various pasture crops ranked in profit as follows:

- (1) Alfalfa.
- (2) Oats, peas and rape.
- (3) Oats, peas and rape, in half the field and soy beans in half the field fenced off, to be used for late summer and fall pasture.
- (4) Rape.
- (5) Red clover.
- (6) Oats and peas followed by soy beans.
- (7) Blue grass.
- (8) Sweet clover.

Even on the best pasture, young pigs fed no grain will make little or no growth and will soon become stunted. It is very important that enough grain be always fed to keep them growing vigorously. This will take at least one and probably much better, two to three pounds of grain daily for each 100 pounds live weight of pigs.



A Good Pure Bred Sow



Clover and Timothy—nearly waist-high—on one of our Oconto County farms.

Ranchers:

To fatten your sheep and cattle, on clover, timothy, succulent grasses; on the richest soil left in the United States; are you willing to burn brush, and wait a year for your great success?

If so—pick your permanent range in the Home Lands, Inc., immense tracts in Forest and Oconto Counties, Wisconsin;

the sections too broken for farm lands—but the best grazing lands to be had anywhere.

Areas of agricultural land go with them for raising winter feed.

This is not only a range country. Winter feed can be bought from the many small farmers in this section.

You get your ranch for a small first payment—with no further payments, not even interest charges—for five years.

We will extend further credit to ranchers of merit—measur- ing up to the accommodation you get from your own banks.

We are not interested in investors, or in the large rancher who wants 20,000 acres. We want the permanent grazer, and will do the most for him. Our minimum is a half section ranch.

Write our Chicago office, and our Mr. Arnold L. Olson will call (his present address is at Twin Falls, Idaho). Mr. Olson, while county agent in Northern Michigan met many western sheep ranchers who settled there, and KNOWS what YOU NEED and what WE HAVE.

Send for our literature with full information.

Home Lands, Inc.

A. L. MORDT, Gen. Mgr.

503 Manhattan Bldg. : 431 So. Dearborn St. : Chicago, Ill.

This cut shows topography of some of our grazing lands.



Assembled Acreages in

WISCONSIN

Are Now Ready for the Western Grazer or the Corn Belt Live Stock Farmer

RANCHES OF ANY SIZE

360,000 acres of the best grassed and clov- er-covered cut-over lands, all watered by streams and lakes, have been assembled in Northern Wisconsin, and will be ap- portioned out in solid blocks to suit the stockman.

Get your location before the Spring rush is on

Write to the

Milwaukee Association of Commerce

Athletic Club Building, MILWAUKEE, WISCONSIN



Field of Potatoes in Price County, yielding 694 bushels per acre

Price County, Wisconsin

offers A Home to the Dairy Farmers, also to the Potato Grower, the Live Stock Man, and to the General or Specialized Farmer.

Write for a soil map, booklet or other information to the
COUNTY AGRICULTURAL AGENT, Phillips, Wisconsin

Excellent Farming and Grazing

LANDS

*For Sale in Alger, Marquette, Luce
and Chippewa Counties, Michigan*

Cut-over Hardwood Lands. Good Soil. Fine Water.
Accessible by Railroads and Good Highways.
Near Settled Communities.

Prices \$7.50 per acre
and up ————— Easy Terms

THE CLEVELAND-CLIFFS IRON COMPANY
Land Department NEGAUNEE, MICH.

From Primeval Forest to Modern Farm in Twenty-five Years

By C. E. GUNDERSON

Agricultural Agent, Gogebic County Michigan

AGRICULTURALLY, one might say of Gogebic County, the half has not been told. Farm lands in and around Ironwood, improved and unimproved are comparatively cheap in price. The soil is a clay loam, not of the sticky gumbo type, and remarkably productive.

Here in the early days stood vast forests of maple, birch and hemlock, which alone speaks for the fertility of the soil. There are no stretches of sand to contend with. Every tillable inch of ground will grow a bumper crop. Clover is native here and grows luxuriantly, producing an abundant crop of the most palatable and nutritious roughage that can be fed the dairy cow, with the possible exception of alfalfa, which is also grown successfully when inoculation is practiced. Two crops of clover, so heavy that an extra man is required to follow the mower to pitch it away from the swath, are regularly harvested.

Corn for ensilage is the dairyman's delight—the tonnage produced per acre of acclimated varieties, is beyond the belief of the uninitiated, making a succulent winter feed that has no equal. The sixty silos dotting the landscapes of Gogebic County bring mute testimony to this fact.

It must be remembered that farming is in its incipency here; twenty-five years ago these were timber and cut-over lands. There are now over 500 bona-fide farmers in the county. An automobile trip throughout the farming country will convince the most skeptical of the agricultural possibilities found here. No ill-kept premises, tumble-down homes and barns will greet the eye—neither will one gaze upon half-starved crops, indicating depleted soils. Everything has about it the air of freshness, strength and prosperity.

Here, indeed, is the settler's opportunity; cheap and productive lands at reasonable terms, a dairyman's and sheepman's land of promise, combining climatic and soil conditions unsurpassed, good roads, splendid schools, and churches, rural free delivery, rural telephone, with Ironwood, a prosperous city of 20,000 population, situated in the midst of the farming community, furnishing a ready market for all farm products.

The Cloverland Trail, a part of the Roosevelt highway, extending from Portland, Me., to Portland, Ore., coursing the sixty-mile length of the county, adds greatly to the ease of traffic and joy of travel.

On fair days auto truck loads of fine registered Guernseys and Holsteins and other farm animals are conveyed to the fair grounds over the best of roads.

Gogebic County boasts a live Agricultural Fair Association. Over 200 head of registered pure-bred and high

grade cattle were judged at the fair in 1919. One thousand two hundred boys and girls engaged in club work, the largest number in any county in the Upper Peninsula, exhibited at the fair. Generous prizes are awarded especially in the pure-bred cattle departments, which tend largely to stimulate a keener interest in the development of the dairy industry. A program for increased activities along these lines is gradually taking form.

In co-operation with Michigan Agricultural College, Gogebic County employs a county agricultural agent who carries on educational work among the farmers, by word, practical demonstrations and publicity, conveying the results obtained at our experimental stations, the experiences of successful farmers in the county, and new improved methods of farming to the settler. Pure-bred stock of both leading dairy and beef animals are being introduced rapidly.

Money for the purchase of high grade and pure-bred stock is easily obtainable at a fair rate of interest through a system recently inaugurated in the banks of the county, the Iron National Bank of Ironwood, sponsor of the idea.

A Federal Farm Loan Association with loans totaling \$89,800 is in successful operation with headquarters at the Iron National Bank.

The Lake Superior Guernsey Breeders' Association is an institution five years' activity in the improvement and increase of the breed.

The Holstein-Friesian Breeders' Association about ready to organize.

The Gogebic Range Poultry Association, organized in 1919, held a very successful exhibit at the Fair and First Annual Winter Poultry Show, February, 1920.

Two highly successful creameries are in operation, and two flour mills providing excellent facilities for the manufacture of all creamery and grain products. The Buss Creamery of Ironwood has recently incorporated a \$250,000 and an extensive building project is under way. The enlargement is necessary to take care of the increased volume of business, as a result of the rapid development along dairy lines in the county.

There are upwards of fifty flocks of sheep on the farms of the county. Sheep-raising will undoubtedly become more and more popular as profitable returns are being realized by the who have been engaged in the business for several years.

In September of 1919 the Merchant and Miners Bank financed the shipment of two carloads of breeding ewes into the county. These sheep were distributed by the county agent up some forty farms, and will serve as nucleus of the future sheep industry.

Western grazers who investigate

LISTEN! WE ARE CALLING YOU

Marinette County, Wis., and Menominee County, Mich. At the Gateway of Cloverland
LEARN THE FACTS

YOUR CARD will bring complete Cloverland information

FARMS—All sizes, locations, and prices, with or without stock, tools and equipment.

UNDEVELOPED LANDS in any quantity for farming, stock-raising, grazing or investment.

MENOMINEE ABSTRACT AND LAND COMPANY

Box 64, MENOMINEE, MICHIGAN

able pasturage lands in Gogebic county during the summer of 1919 expressed themselves as amazed and surprised at the grazing facilities afforded here within a day's journey of the markets at Chicago and St. Louis.

D. Scott, of Casper, Wyo., deeded the 2,800 acre tract at Dunham finest for sheep and cattle grazing had seen and wished that he had done it earlier in the summer in order that he might have placed his stock there.

For dairying and sheep-raising it would be difficult to find a more desirable location. We have the bracing atmosphere that makes for sturdy stock; lands grow the best of clover, alfalfa, root crops, oats and peas, and for silage, and exceptionally high tonnages per acre are produced. We have the markets, the roads, and the modern things that go to make a satisfied life.

Potatoes are grown quite extensively and are counted on for a cash crop every year. They can be handled conveniently in connection with dairying and sheep raising, and heavy yields of the finest quality are the rule rather than the exception.

The heat of an unsurpassable quality is heavily per acre and is ground in our local mills into flour that thus is used at home.

For the man seeking a location for the growth of apples, cherries and peaches, where there is a good home market and close to the central market, "CLOVERLAND" holds out good promise. Along the shores of Lake Superior, and for several miles back into this county, any of these fruits can be grown successfully. The water here is the climate preventing too early budding and consequent damage to the fruit.

Experts who have examined this soil have asserted that this part of the Upper Peninsula is destined in time to become almost one vast commercial orchard. Wild raspberries, blackberries, strawberries, gooseberries and straw-

berries grow here in abundance. This proves that these and other vine and bush fruits will assure you a rich return for conscientious effort.

The fact that your fruit will ripen late and reach the central markets after home fruits have been exhausted, gives you assurance that the high prices that reward the southern grower of fruit will be received.

To you, who are renting, because of high-priced land, come to "CLOVERLAND," come to Ironwood, Gogebic County, Mich. You will find a ready welcome awaiting you—farming here does not mean the learning of new methods. The soil is good, the rainfall is here with the advantage that it is practically never failing for the time of need, and the climate is that of the North Temperate Zone. Come into this new county and build yourself a home!

Real Stock Farming

ON his 300 acre farm near Sycamore, Ill., Norman B. Westlake during the year 1919 produced an average of 502 pounds of meat daily for 365 days in the year, enough meat to feed a city of 3,000 population, according to government statistics. This gain was net, representing over ninety tons for the year, and was put on cattle, hogs and sheep. During the year Mr. Westlake fed 2,400 sheep and lambs, over 200 cattle and 300 hogs, buying the sheep and cattle as feeders in the Chicago market and raising the hogs.

"It paid me last year and it has paid me every year to feed all three kinds of live stock," says Mr. Westlake. "I lost money last year on sheep and cattle, but made enough on hogs to shift the balance at the end of the year in my favor. I may lose on hogs this year, but if I do I hope to make it up on cattle and sheep."

In starting the new year Mr. Westlake took his son in partnership with him. The junior member of the firm is 24 years old and is a graduate of the Wisconsin College of Agriculture.

A New Farm

In a Proven

Farming District

Insures Success

Inquire About
Ontonagon County,
Michigan

Ontonagon County, Michigan

is an agricultural region sparsely populated with practical, successful farmers, who have had the advantage of a splendid clay-loam soil as the basis for farming. There are thousands of acres of this same type of cut-over land in Ontonagon County awaiting the settler, or big rancher. Most of the timber was taken off years ago, a greater portion of the land is open, and there is an abundance of clover and grass ready for range purposes, pasture and wild hay. The county's chief industry is agriculture, so you will be settling among farmers in Ontonagon County.

No Real Estate Game

The County Board of Supervisors of Ontonagon County are inviting you in this advertising space to inquire about their county, and they will give you official service in helping you find the location you want. Detail information may be had by addressing a letter or post card to

WILLIAM KROHN

County Clerk, Ontonagon County,
ONTONAGON, MICHIGAN

A DEPENDABLE RANGE

is the goal of every stockman. With a dependable range he feels sure of success and secure against future adversity. A tract of select, cut-over land in Cloverland offers stockmen this opportunity.

Tracts to Suit Needs

We have several choice ranges among our holdings which we will sell to practical stockmen on terms that will be to his advantage.

CONSOLIDATED LUMBER CO.

MANISTIQUE, MICHIGAN

"In the Heart of Cloverland"

Upper Peninsula Cut-Over Lands

Suitable for Grazing or General Agricultural Purposes

FOR SALE

in Alger, Chippewa, Gogebic, Luce,
Mackinac and Schoolcraft Counties

THE Northern Peninsula of Michigan is the best Livestock and Dairy country in the United States, if not in the world. It can care for 8,000,000 sheep and 1,000,000 head of cattle.

For information write

LAND DEPARTMENT, Charcoal Iron Company of America
MARQUETTE, MICHIGAN

Cloverland Bargains

RATE: Seven Cents a Word

Copy for the Cloverland Bargains column must be in the office not later than the fifteenth of month preceding publication. Address all want ads to the CLOVERLAND MAGAZINE, Cloverland Bargains Dept., Menominee, Michigan

LANDS FOR MIXED FARMING AND GRAZING—In Marquette and Alger County, Mich. Cut-over Hardwood Timber Lands, suitable for General or Special Farming, Stock Raising, etc. Excellent Water. Soil of Rich Sandy Loam. Extraordinary Liberal Terms. Also some other Tracts in Iron and Emmet County. Write at once for our Beautiful Illustrated Booklet. Jackson & Tindie, Inc., 503 Niagara Life Bldg., Buffalo, N. Y.

MICHIGAN SNAPS — 120 acres near Houghton. Small clearing. Good soil. No waste land. Only \$2,000; \$500 cash. \$50 acres close to Ewen. Nice little house and barn. 20 acres cleared. Only \$1,600; \$600 down. Hardy-Ryan Abstract Co., Waukegan, Wisconsin.

TWO MICHIGAN BARGAINS—\$0 acres. House, barn, clearing. Near Paynesville. \$1,200; \$250 down. 80 acres near Ewen. \$1,200; \$200 cash. Both on roads. Good land. Wm. Hardy, owner, Waukegan, Wisconsin.

FOR SALE—3,500 acres in one block. Seven miles north of Oconto. A low price will be accepted for the whole tract. W. H. Grunert, Green Bay, Wis.

A FINE FARM FOR SALE—230 Acres, one mile west of Carney, Michigan, which has good schools and a creamery. 150 Acres of this land is cleared; has a good house and hay barn and small orchard, plenty of running water all the year. Cleared land is well suited to grass. The soil is clay loam. There is not an acre of waste land in the farm. Easy terms. Address Box 53, Cloverland Magazine.

FOR SALE—100 acres, good loam soil, 1/2 mile from town, on macadamized road. 75 acres under cultivation, balance pasture with spring stream; good 2-story 10-room house; barn 35x55; hay barn; tool shed; garage; chicken coop; hog house; wood shed; smoke house; 2 wells; 3 apple orchards. Personal property included, wagons, mower, rake, binder, disk harrow, cultivators, plows, harrows, drill, fanning mill, etc. I am offering this farm with personal property complete for \$10,500.00, \$7,000.00 cash, balance terms to suit. Write P. L. Kaiser, Menominee, Mich.

HAY—300 tons or more whenever in need of Clover or Timothy Hay also Straw. In carload lots. Dafter Hay & Grain Co., Dafter, Michigan.

FOR SALE—400 Feeding pigs, eight weeks old, at \$3 each, delivered. Booking orders now for May delivery. Ernest Dutcher, Whitewater, Wis.

AGENTS WANTED—If you are making less than \$150 a month, write us today. We have no "get rich quick" plan, but if you are wide awake, honest and willing to work with us and give us at least part of your time, we will give you an opportunity to make from \$50 to \$50 a week. Just drop us a postal card for complete particulars free. Box 123, Cloverland Magazine.

FOR SALE—One fine 3,200 lb. team, bay geldings, 10 months old, gentle, experienced farm team; includes heavy farm harness in A-1 condition; price \$450. One grade cow, half Jersey, half Guernsey, 8 years old, gentle as a lamb, milks 14 quarts when fresh, freshens in July; price \$150. One 1918 Ford touring car, excellent mechanical condition, tires new; price \$450. One western saddle pony, rein broken, speedy, full of life, gentle; includes fine western saddle; price \$60. Two tons A-1 clover hay; 25 tons clover and timothy mixed; baled; at market price. Address, W. B. Wallace, Lakeview, Wis.

GET OFFICIAL INFORMATION regarding soils, climate and crops in Price County, Wisconsin, from the Representative of the College of Agriculture and the U. S. Department of Agriculture. Improved, partly improved and undeveloped land \$10 to \$100 per acre in Price County. Most rapidly developing live stock, dairy and general farm county in the clover belt of Wisconsin. Write H. J. Rahmow, County Agricultural Agent, Phillips, Wis.

FOR SALE—250,000 acres of unimproved cut-over lands in tracts to suit purchaser. Prices \$5 to \$15 an acre, terms reasonable. Address J. M. Longyear, Marquette, Mich.

FOR SALE—We own grazing lands in the great open areas of Cloverland, where natural grass settings are found. We can offer you any size tract desirable. Write for full particulars. Baldwin Corporation, Appleton, Wis.

FOR SALE—Choice cut-over hardwood lands, especially adapted to grazing and general farming. Small or large tracts at reasonable prices, terms to suit purchaser. Northwestern Cooperative & Lumber Co., Gladstone, Mich.

FOR SALE—We have tracts of cut-over lands of all sizes for practical stockmen who want to succeed in a permanent manner. Consolidated Lumber Co., Manistique, Mich.

FOR SALE—Upper Peninsula cut-over lands suitable for grazing or general farming, in Alger, Chippewa, Gogebic, Luce, Mackinac and Schoolcraft counties. For information write, Land Department, Charcoal Iron Company of America, Marquette, Michigan.

FOR SALE—We own 15,000 acres of cut-over lands in Dickinson, Baraga, Menominee, Iron, and Gogebic counties in the Upper Peninsula of Michigan; 20,000 acres in Forest and Florence counties, Wisconsin. Any size tract on easy terms. J. W. Wells Lumber Co., Menominee, Mich.

FOR SALE—\$2,400. 160 Acres. 40 acres fall plowed, log house, log barn, well and wire fenced, four miles from railroad, one mile to school. \$300 down, balance contract \$100 per year. Timber enough on land to pay for same. Address, E. C. Vail, Alvin, Wis.

HIGH GRADE Holstein or Guernsey calves, either sex, 6 to 8 weeks old, \$30 each, delivered. Ernest Dutcher, Whitewater, Wis.

FOR SALE—\$50,000.00 property in heart of booming city. Will take \$25,000.00 cash, balance cut-over land in Wisconsin. Fred Wegener, West Bend, Wis.

FOR SALE—80 Acres in Menominee County, Cloverland; A-1 clay loam soil, 2 miles from town; on main line of C. & N. W. R. R.; 60 acres under cultivation; 2 pasture with running water; good 2-story 6-room house, hardwood floors and stone basement; barn 40x60; small orchard. Excellent farm, good neighborhood with all conveniences, schools, churches, bank, macadamized roads, etc. Price \$6,000.00, \$3,000.00 cash, balance terms at 6%. H. M. Wright, Menominee, Mich.

FOR SALE—Any part of 100,000 acres stock lands or farms in Michigan or Wisconsin. Write for books and prices. Menominee Abstract & Land Company, Menominee, Mich.

"THE RIVIERA"—Grace! Beauty. Wonderful clear tone! Acoustic, mechanical perfection! The only 46" cabinet phonograph sold at \$60 up. Completely equipped, unlimited service guarantee, shipped on approval. Patented outliners, houses, knockdowns, motors, supplies. Records 70c up. Catalog 10 stamps. Riviera Co., Milwaukee.

FOR SALE—2,000 Acres land, in one block. Excellent soil. Well located. Price and terms attractive. Write Fred A. Roper, Menominee, Michigan.

NEED CASH—Sacrifice beautiful \$150 phonograph and 6 records, electric light, needle-pointers, stop, guaranteed like new. On approval, \$50 cash. 693 Bartlett A., Milwaukee.

IDEAL SHEEP LAND—Fertile soils that grow corn, wheat, oats, barley peas, vetch, clover, alfalfa, fruit and vegetables. In 1,000, 2,000 and 3,000 acre tracts, and smaller if desired. \$10 to \$15 per acre, easy payments, interest 6%. Easily cleared, well grassed and watered by small lakes and streams. Located in the heart of Lower Michigan's clover seed belt. No cash payments required if responsible purchaser will grow annually 4 per cent of acreage to clover and apply proceeds from seed yield upon payment of land until paid for. Clover seed one year after another in Presque Isle County nets growers \$100 an acre. John G. Krauth, Millsburg, Mich.

FOR SALE—Pure bred Guernsey bull, 2 1/2 years old; Sire Mashie development; ham; dam, Carlton Chosan. Price, \$200, or will exchange for breeding ewes. Address Herbert Burrows, Emmet P. O., Lake County, Minn.

FOR SALE—Several sections of best cut-over land, near railroad, on good roads, close to Superior, \$20 per acre, easy terms. Also have a few good improved farms for sale. For information, write John W. Lake, Poplar, Wis.

FLORENCE COUNTY, WISCONSIN LANDS

for sheep and cattle ranches, in tracts of 320 acres up to 5,000 acres. For full particulars, write

PETER MCGOVERN LAND CO., Florence, Wis.

The Keweenaw Land Association Ltd.

— OFFERS —

Cutover Lands

in Chippewa, Dickinson, Iron, Gogebic, Ontonagon and Houghton Counties in the Upper Peninsula of Michigan in tracts to suit

Clay loam, sandy clay loam, sand loam and sand soils at \$5.00 to \$15.00 per acre. Generally well watered.

J.M. LONGYEAR, Agent, Marquette, Mich.
D. S. DEAN, Treas., 87 Milk St., Boston, Mass.

Peter White Land Company, Limited
MARQUETTE, MICHIGAN

Farm and Timber Lands

Cut-over clover lands in Sawyer, Bayfield, Rusk and Price Counties, Wisconsin, for sale in large or small tracts. Reasonable prices.

AMERICAN IMMIGRATION COMPANY,
Chippewa Falls, Wisconsin

VON PLATEN LUMBER COMPANY

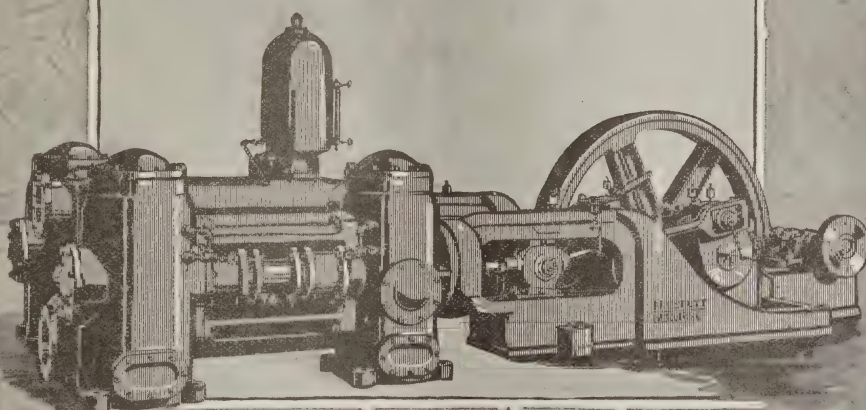
MANUFACTURERS OF

NORTHERN HARDWOOD

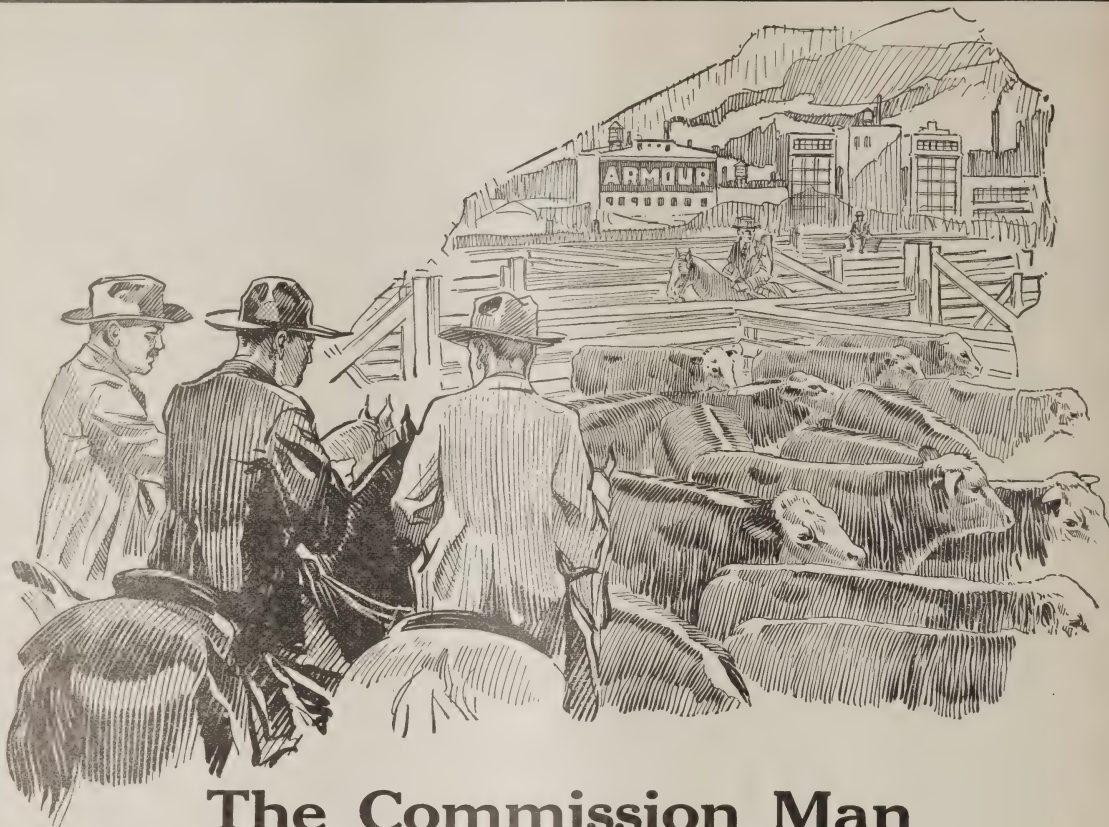
IRON MOUNTAIN, MICH.

PRESCOTT MENOMINEE

MINE PUMPS



THE PRESCOTT COMPANY
MENOMINEE, MICHIGAN, U. S. A.



The Commission Man —what he does for YOU and ARMOUR

THE first aim of the commission man is to get the highest prices he can for your shipment. His earnings are determined by the number of carloads you ship—not by the value of your stock.

The commission man would soon be out of business if each shipper shipped to him only once. Your permanent patronage is what he seeks, and the best way of holding your account is to get the highest possible price.

He is your selling agent, the logical link between the producer and the packer. He must be an expert on livestock values and a competent judge of the livestock market. He must be able to anticipate and weigh demand against supply—know when to sell, when to ask more for your stock. Competition in buying is necessary for the welfare of the livestock industry, and the commission man is active in securing it.

He sells not only to buyers for large packers, but also to buyers for small packers and slaughterers,

buyers for Eastern shipment, to speculators and buyers of feeders and stockers. He sells to whoever offers the highest price, be it an Armour buyer or a small butcher. The commission man by no means always accepts the first bid. If he has studied his stock and his market accurately, he may refuse bid after bid until he gets the price he knows the animals to be worth.

Armour and Company look to the commission man as the direct source of supply for our daily packing needs. As your representative we deal with him exactly as we would if we dealt directly with you. We believe that he performs a necessary service for you in the most efficient manner possible and at the lowest cost.

We have no connection, direct or indirect, with any commission firm or any livestock exchange. Our own interests and the interests of the livestock producer dictate that the commission man be wholly independent of the packer in the operation of his business. Charges that the commission business is in any manner under the domination of the packer are wholly untrue.

Rely on your commission man! He is the agency that keeps the market active and supports it at every turn, balancing supply against demand, carefully gauging buying competition, he helps put livestock prices on true levels.



This is the mark under which your best products reach the consumer

ARMOUR AND COMPANY
CHICAGO



Slow and Laborious
Cost to Set, 10 to 20 Cents
Per Post



Quick and Easy
Cost to Set, Only One Cent
Per Post

The Old Way—and the New

WHO ever enjoyed the back-breaking drudgery of digging post holes and tamping? Probably the hardest, most discouraging work on the farm. Fitting punishment for a profiteer in the hereafter.

But those days are over for the progressive farmer. There is no longer any reason for undergoing this punishment.

Not only is the RED TOP way quick and easy, and cheaper—it also gives you a stronger, more durable and finer-looking fence line.

RED TOP *drives like a stake—and anchors like a rock.*

You only build a RED TOP fence line once. It will last as long as you are on the farm and always look as fine and trim as the day you built it.

No replacements necessary every few years, due to rotting at the ground line.

You take no chance on the RED TOP. Here is the guarantee that goes with every post:

"We guarantee RED TOP Steel Posts will not break, burn, rot or frost heave in the fence line; that they are free from defects in material and workmanship; that they will outlast the heaviest fencing manufactured.

"We guarantee RED TOP Posts to be just as represented in our literature and advertising.

"Any RED TOP Post which does not fulfill the guarantee will be replaced by your dealer, without cost or argument."

If for any reason your dealer cannot supply you with RED TOPS—write direct to us.

Send for Free RED TOP Booklet Now

CHICAGO STEEL POST CO. : 208-P South LaSalle St., Chicago, Ill.

Canadian Factory: Preston, Ontario, Canada

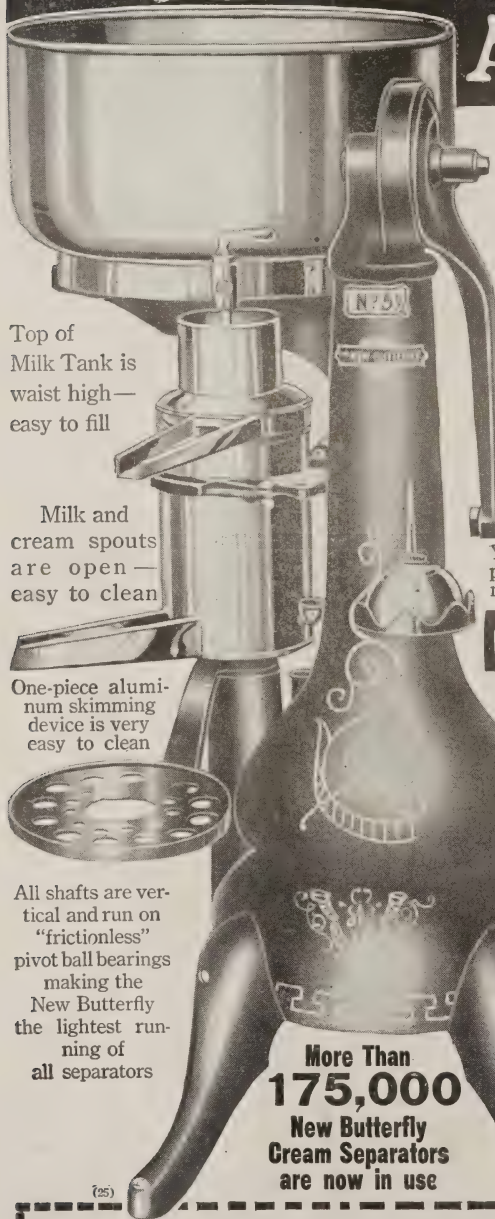
Red Top

Guaranteed

Steel Fence Posts

\$2 ONLY DOWN

A Year to Pay



Top of Milk Tank is waist high—easy to fill

Milk and cream spouts are open—easy to clean

One-piece aluminum skimming device is very easy to clean

All shafts are vertical and run on "frictionless" pivot ball bearings making the New Butterfly the lightest running of all separators

**More Than
175,000
New Butterfly
Cream Separators
are now in use**

Think of it! You can now get any size of the New Butterfly Cream Separator you need direct from our factory for only \$2 down and on a plan whereby it will earn its own cost and more **before you pay**. You won't feel the cost at all. Our low prices will surprise you. For example:

\$44

buys the No. 2½ Junior, a light running, easy cleaning, close skimming, durable, guaranteed separator. Skims 120 quarts per hour. You pay only \$2 down and balance on easy terms of

Only \$3.50 a Month

You have no interest to pay. No extras. The prices we quote include everything. We also make four larger sizes of the

New Butterfly

up to our big 800 lb. capacity machine shown here—all sold at similar low prices and on our liberal terms of only \$2 down and more than a year to pay. Every machine guaranteed a lifetime against defects in materials and workmanship.

30 Days' Trial

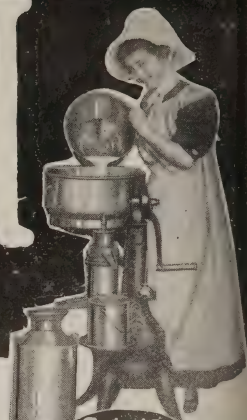
You can have 30 days' trial on your own farm and see for yourself how easily one of these splendid machines will earn its own cost and more before you pay. Try it alongside of any separator you wish. Keep it if pleased. If not you can return it at our expense and we will refund your \$2 deposit and pay the freight charges both ways.

Catalog Folder—FREE

Why not get one of these big labor-saving, money-making machines while you have the opportunity to do so on this liberal self-earning plan? Let us send you our big, new, illustrated catalog folder showing all the machines we make and quoting lowest factory prices and easy payment terms. We will also mail you a book of letters from owners telling how the New Butterfly is helping them to make as high as \$100 a year extra profit from cows. Sending coupon does not obligate you in any way. Write today

ALBAUGH-DOVER CO.
MANUFACTURERS

2107 Marshall Blvd. CHICAGO



**Gets All
The
CREAM**

Made \$61.39 More from Same Cows
"We made \$75.61 worth of butter before we had the machine and in the same length of time we made with the Butterfly Separator \$140.00 worth of butter from the same number of cows."
THOS. S. KERMSKY,
Point Aux Plais, Mich.



**EASY
TO
TURN**

Twelve-Year-Old Child Runs It

"We would not do without our Butterfly Separator or exchange it for all the machines we have seen. Our little girl, 12 years old, runs it like a clock!"
MRS. P. E. RUDE, Ashland, Wis.



**EASY
TO
CLEAN**

Simplest, Easiest to Clean
"My son took a course in agriculture at Cape Girardeau and he worked with a dozen or more makes of separators, and he said this was the most simple, and easier cleaned machine than any of them."
J. B. FINLEY, Oran, Mo.

ALBAUGH-DOVER CO.,
2107 Marshall Blvd., Chicago, Illinois

Gentlemen—Without obligation on my part, please mail me your **free** Catalog Folder and full particulars regarding your special easy payment offer on the New Butterfly Cream Separator.

I keep.....COWS.

Name.....

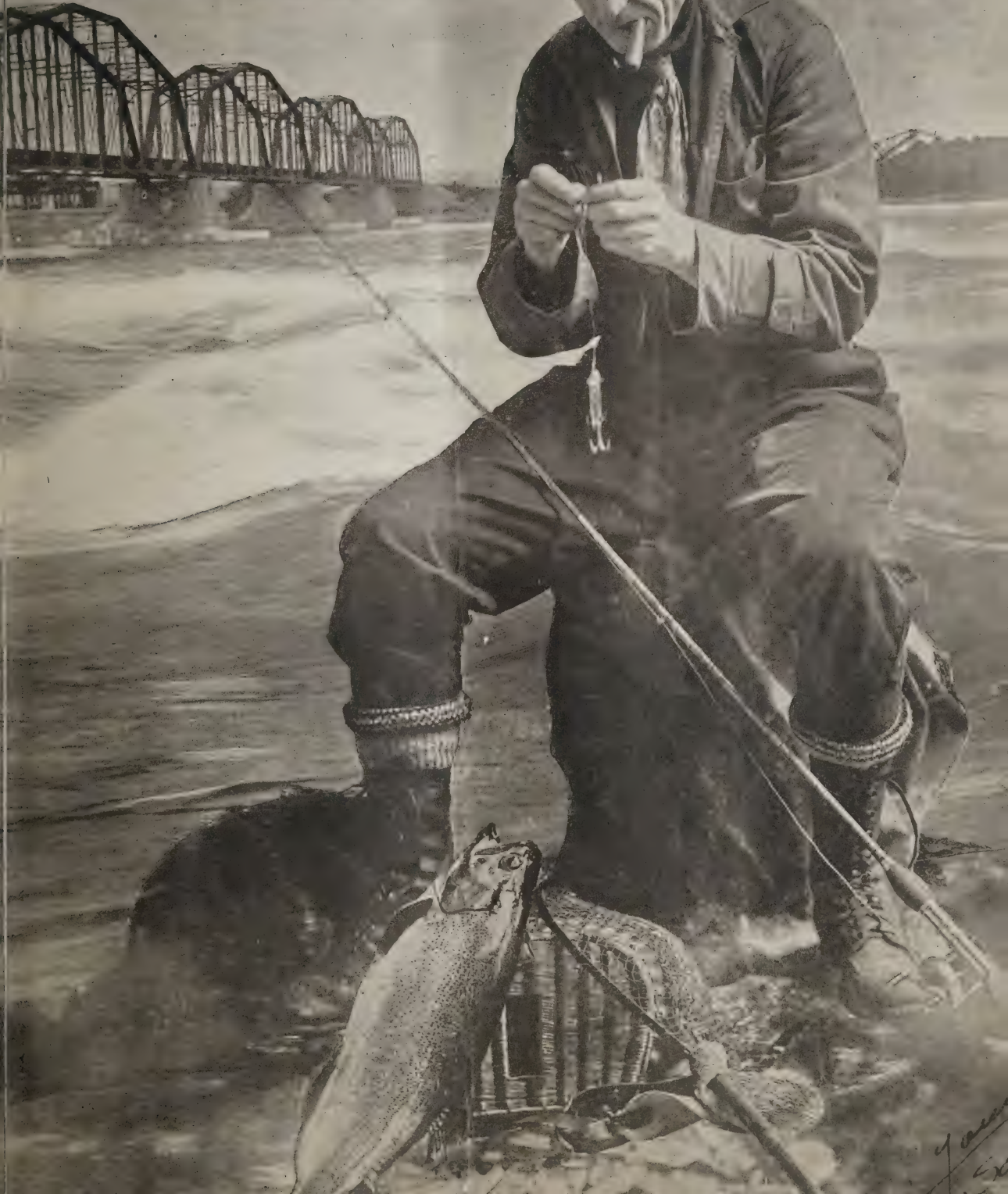
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2 CLOVERLAND

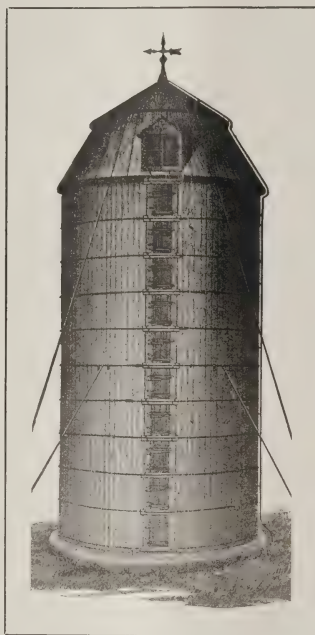
MAGAZINE

JUNE 1920



CLOVERLAND SILOS

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CLEAR
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OUR Cloverland Silos have "can't-sag" doors, which are always in place and are clamped tight when closed.

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So satisfactory has been the service given by these trucks that this company has just ordered two additional GMC trucks.

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Finest materials, scientific heat treatments, careful workmanship and the backing of the largest industrial corporation in the world entitle GMC trucks to careful consideration.



These Cloverland Dealers will be glad to tell you about GMC Motor Trucks

Union Auto Co., Eau Claire, Wis.
Elsen & Phillips, La Crosse, Wis.
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A. G. Jennings Motor Sales, New London, Wis.
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J. T. McCann Co., Appleton, Wis.
Cloverland Garage & Machine Works, Manitique, Mich.

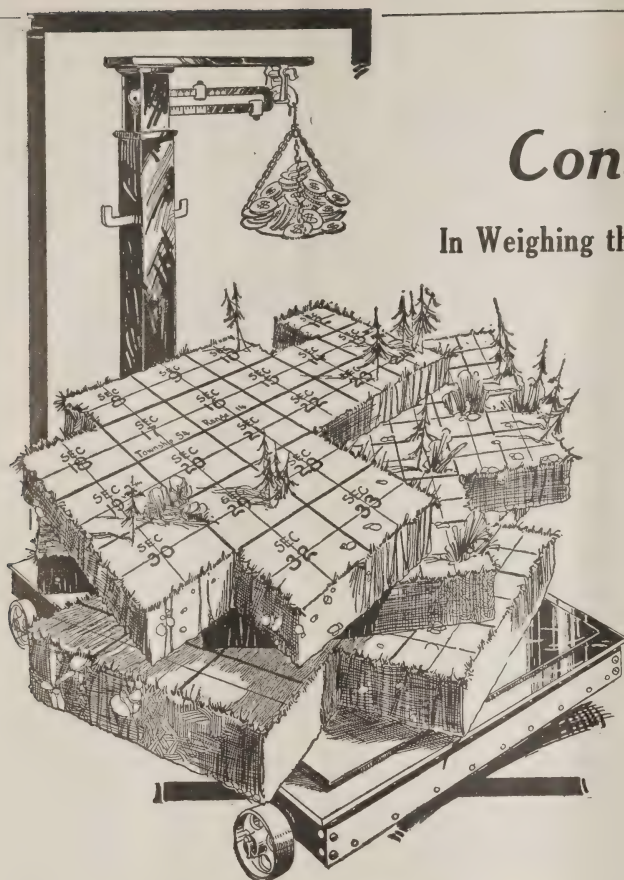
Merrill-Buick Co., Merrill, Wis.
A. C. Homan Auto Co., Menasha, Wis.
Hathaway-Buick Co., Oshkosh, Wis.
Munising Motor Co., Munising, Mich.
V. L. Lipsett, Pickford, Mich.
Austin Lipsett, Sault Ste. Marie, Mich.
Larson & Asplund, Ashland, Wis.

J. A. Rummele Auto Co., Manitowoc, Wis.
Raab Motor Co., Sheboygan, Wis.
Johnson Motor Co., Fond du Lac, Wis.
Auto Supply Co., Plymouth, Wis.
Farm Power & Equipment Co., Lancaster, Wis.
Graham & Pecard, Bessemer, Mich.
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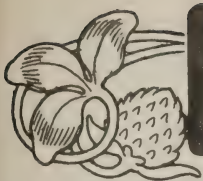
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CLOVERLAND

MAGAZINE



REGISTRATION OF TITLE APPLIED FOR TO U. S. PATENT OFFICE

Published Every Month at Menominee, Michigan

Vol. XIV No. 2

MENOMINEE, MICHIGAN, JUNE, 1920

\$1.00 A YEAR, 10c THE COPY

FOOD SHORTAGE

THERE will be a shortage of food crops this year. This does not mean there will be a famine, but a shortage of food crops can not be averted. Seed that should have been planted in the ground last year can not be planted now and bring a harvest. Seeds that should have been planted this spring can not be placed in the ground in midsummer and grow to maturity before fall. There is a shortage of acreage of winter wheat, of spring wheat, of oats, rye, potatoes, and beans. What else goes into the bulk of our plant food supply?

Beef cattle, sheep and swine production has fallen off. What else goes into the meat supply?

The faithful dairy cow is all that is holding up under the stress of farm labor shortage and demoralized rail transportation. Many splendid dairy herds have been cut down or broken up, but fortunately the cows have not gone to slaughter. As a rule, they merely changed hands, so their production has not decreased.

This coming food shortage is going to give the nation a jolt, a shock that will compel the population of industrial centers to turn their attention to agricultural production, instead of higher and ever higher wages, and more and more profits. The greed for greater production in the mills and factories, more pay, more profit, has slowly but surely whittled the farmer up one side and down the other, until he has been forced to go it alone on the farm. The city first recruited the farm hand, then the farmer's son, then the farm tenant, to man the machines of industry. No thought has been given as to where the food supply would come from, how these great industrial armies were to have subsistence, no matter how high the pay.

When we marshalled more than 4,000,000 young men into an army for war, the slogan, "*food will win the war*," was accepted as gospel truth, war gardens were popular fads if not necessary, many farmers' sons and tenants were spared from military service to help produce food. Peace has changed all this. Industry has marshalled more millions into mill and factory service than were called for war purposes, no necessity was recognized for "*food to feed industry*," the war gardens ceased to be a fad or even regarded as a necessity, and the farmers' sons were not spared to help produce food. The farmer was left to go it alone, and as if this were not enough, the price of labor-saving machinery went beyond his reach, or the railroads could not deliver it in time to be of use this year.

Weather conditions throughout the United States have been unfavorable for good crops since last fall. Winter wheat pulled through on about a 79 per cent basis on May 1, as against 100 per cent last year, and a falling off of about 33 per cent in acreage as compared with 1919. Other fall sown crops are on a parity with wheat. Spring wheat acreage, potato acreage, bean acreage, and about everything else that is planted in the spring, shows a tremendous falling off in acreage because of farm labor shortage. Michigan will have a 70 per cent acreage of beans this year, 90 per cent acreage of potatoes; Wisconsin will have about 95 per cent potato acreage, and Minnesota the same. No place in the entire United States, except in an isolated community here and there, shows anything but a decreased acreage of food crops.

The man whose vision was not blinded by the big industrial wave and wage pyramiding, who read the signs of the times and dared breath a warning last fall, during the winter and early spring, was hooted down, called a calamity howler, a reactionary, an undesirable citizen, at best a pessimist. Now the country is beginning to sit up and take notice, but it is too late this year.

Following a hard winter which destroyed millions of bushels

of wheat and hundreds of thousands of sheep and cattle on the western ranges, came a cold, wet spring to set back farm operations throughout the United States from two to four weeks, and there are only two to four months left for reduced planted acreages to gamble against the elements and insect pests. It almost seems that God in his infinite wisdom retarded the spring and created unfavorable weather conditions to help bring this country to its senses.

The nation is not facing a calamity, but it is facing a real food shortage, a shortage that will be convincing enough that industry can not thrive without agricultural production to back it up, that no matter how high wages go or profits soar, they are worth little when food is scarce or there is none at all during periods when rail conditions and the weather withhold the market supply.

The only hope for next year and the next few years is that the awakening will be sufficient this summer so that farm labor and tenants may get back to the farm this fall in time to increase the planted acreage and remain there to restore food production to normal.

Industries may be set into full activity by simply blowing the whistle, providing no strikes or lockouts are on, but a full year is required to get the farm back to full production, no matter if it should be overwhelmed with labor, and a serious shortage of food stuffs once created requires a period of several years to overcome and get back to normal. There are several fundamental reasons for this, among them the necessity of crop rotation, and the fact that farmers are tempted to sell seed stock when prices are high, instead of putting it back into the ground.

The cycle of live stock production necessary to the meat animal supply to normal will cover a period of two to four years, depending upon the kind of stock, swine, sheep and beef cattle, and providing extreme conservation and economy are practiced and young female animals are permitted to attain maturity and breed until the offspring is in excess of the parent stock, instead of being sent to slaughter as pigs, lamb and veal. The slaughter of young male animals also must be restricted until fuller maturity in order that heavier carcasses may be placed on the block, if quick return to normal meat supply is expected.

And here the problem again reverts to the soil. If breeding stock is to be carried over a period of years so that the offspring will show a gain over the foundation stock, if young males are to be carried over a longer period to make heavier carcasses, there must be more forage crops and grain, and these crops can not be increased unless more farm labor is available and prices received for all farm products show a greater buying power than now prevails.

There will be no material decline in the price of meats within the next few years for the very good reason that there is a shortage of breeding animals, and the shortage of farm help to produce field crops will prohibit any substantial portion of the population going on a vegetable diet and boycott meat to lower prices.

There is no angle from which the food supply of the nation has not been hit by the exodus of farm labor to the industrial centers. There is no angle from which the food supply may be increased except through an exodus of labor from the industrial centers to the farms. It will require a real movement "*back to the land*"—not talk.

No need to kick when prices of food go higher. It will do no good. Complaint and regrets will not grow one spear of grain, one hill of potatoes, one hair on a steer, one fibre of wool on a sheep's back. It's too late to think about this year, but a most opportune time to think about next year and the years to come.

CLOVERLAND MAGAZINE

Stumps Dictate Diversified Farming

By J. H. HAY

Deputy Commissioner, Department of Agriculture of Minnesota

THERE are so many avenues of approach to the subject of home-making in Northeastern Minnesota, that the writer concluded to confine his attention to but one of these features in each of a series of articles dealing with cut-over lands. To this end, the stump proposition is given first consideration. Not that its importance grants its priority of place, but because of the general belief that stumps and successful home-making in a cut-over region are incompatible.

If the outlander were requested to state the one factor which, in his judgment, constitutes the greatest obstacle in the path of the settler in the cut-over regions, he would promptly reply "stumps." In this reply he would reflect the views of most persons; at least of those not entirely familiar with the later phases of the clearing of land in Northern Minnesota. The earlier idea which prevailed was that the immediate and complete removal of stumps in all the land which the settler purposed cultivating was an essential and fundamental action in his home-making plans. Farm management specialists in the employ of the University of Minnesota and other individuals possessing much practical experience in the cut-over territory are the authors of bulletins and pamphlets which point the way to the newer view of stumps in their relation to successful settlement in Northeastern Minnesota. These men are heartily in favor of the removal of stumps, if it can be accomplished economically and in harmony with those principles of land development which make it a paying proposition to the settler.

The newer view is that stumps are not really the retarding influence in rural home-making in the cut-over regions that they were once considered. It is admitted that they are an unmitigated nuisance, that they occupy valuable land space, that they interfere with the movement of farm machinery and, like Samantha Allen, are decidedly "sol" in their ways. Still, stump students and northern farm management specialists claim that even stumps have their compensating features. These experts point their fingers to the thirty or forty years' experience of the Minnesota prairie farmer, who now recognizes the folly of placing all his eggs in one basket. Depleted soil, decreasing grain yields, and an ever increasing crop of weeds intermingled with his grain have compelled him to adopt the safer, if more complex, plan of diversified farm organization. The stump students also indicate how the woods settler is, by reason of the stumps, committed to the diversified program at the very beginning of his agricultural career. Stumps mean intensive cultivation of small areas of land; the possession of a few head of stock and some chickens; a tract for garden and possibly a few acres cleared of stumps in order to produce essential food for man and beast and a few hundred bushels of potatoes for a cash crop; they mean the seeding of clovers and grasses for pasture and winter feed; in fact, they compel the adoption of diversified system of farm organization, which by the way, is the approved farm program today. In other words, the northern settler is forced to get started right and many wise people claim this is half the fight in the battle for success.

Unfortunately, too many settlers fail to regard the stump proposition in this light, and they can scarcely be blamed. At the best it is no pink tea party. Under the most favorable conditions it tests the determination, the health and the purse of any man. Those who give ear to the call of more widely and wisely advertised regions and who find interest in perusing the pages of handsomely illustrated folders describing other climes and fields are soon lost to



A Good Pasture with the Stumps, but Not Ready for Diversified Farming Until After a Few Blasts Like This.

the cut-over country. Or, if they cannot withstand the constant and compelling attractions of town life in the various industrial centers in and about the cut-over sections, again are their farm moorings weakened and often broken. It does require a bit of vision on the part of the settler to make him happy in the first year or two in his land clearing and home-making experiences. The wise settler and the one who finally makes good, however, is the man who admits the wisdom of the diversified program dictated by the stumps, and combines his time, his power and his means in wise fashion to carry out the stump program of farming. His vision must be sufficiently clear and extended to enable him to make a just comparison between his possessions, his prospects and his circumstances five to eight years hence and those of his wage-earning friend, who chose a "job" in town as against the carving out of a home and com-

petency for himself and family in the cut-over country.

It is the belief of many conversant with cut-over conditions that entirely too much publicity has been given stumps. They have protruded themselves into the home-making program far beyond the limit to which their importance entitles them. The old belief that their removal was the first essential in settlement has broken many a good farm prospect. This old scheme of stump removal is the foundation for the belief that it takes three to five successive settlers to establish one who finally sticks. This ancient belief is now exploded. There are other factors in the settlement game which rank with stumps and possibly excel them in retarding settlement. Take, for instance, ordinary brush and that smaller growth of trash which immediately springs up with tropical abundance when the lumberjack has completed his tasks in the woods. The fifteen

million acres of cut-over lands in Northeastern Minnesota are more burdened by this growth than they are embarrassed by the stumps left by the lumberman. This region is pre-eminently a stock country. Native and tame grasses flourish with a surprising profusion when given half a chance. Streams and lakes abound. But grass cannot grow and stock cannot thrive so long as the surface of this great area is practically hidden under a dense and ever-increasing canopy of brush.

It must have been an itinerant preacher in Northeastern Minnesota who composed and popularized that familiar gospel song entitled "Let a Little Sunshine In." He must have been familiar with the numberless tote roads and winding trails of the woods country. He must have seen these paths bearing their luxuriant growth of clover, timothy and blue grass, the result of the early teamster's unwitting seeding. He must have known the weariness which comes to him, who in following these trails perforce must tear his way through the heavy tangle of these grasses. He also knew the coolness of the shadows and the absence of grass life beneath the heavy brush growth; in fact, he knew what it meant to the soil of the cut-over lands to let a little sunshine in. He was probably the first real county adviser in Northeastern Minnesota who advocated the seeding of all cut-over land with clovers and other valuable grasses. He believed that brush and shadow are greater enemies to successful land clearing than are the better advertised but less dangerous stumps. In truth, he and his friends of the cut-over country early learned the lesson of getting sunshine in on the soil, of brush removal and grass seeding. The writer knows many a successful settler who is well established on a cut-over farm and whose fields are still in many places dotted with numerous stumps, but he fails to recall any who might be classified in the successful group whose fields are still wilderness of brush.

Stumping demonstrations, stump contests and all the efforts put forth in numerous and varied ways by interested individuals and associations are worthy and deserving agencies and should receive recognition and support. But at the same time, the fact must not be lost sight of that stumps are not necessarily insurmountable obstructions in a successful farm program in the north country.

To be more concrete: In several parts of Minnesota are found farm promoters who prepare what are known as ready-to-use farms. These people believe that if clothing, hats, houses and a long list of other articles can be made ready to wear, that they could also supply the settlers with ready-to-use farms.

Their scheme involved the stumping of five or six acres for garden and a cash potato crop; the brushing of twenty-five or thirty acres in which was sown tame grasses; the fencing of open brush tracts for pasture; the erection of a neat little house and small barn and chicken house; and the installing of a well and other necessities incidental to a well appointed farm. Sometimes the twenty-five or thirty acre tract was cleared of stumps by cutting them off level with the ground, in order that machinery might move over them easily. This was done when the stumps were small or of the jack pine variety. If large, they were permitted to remain. This ready-to-use farm was then sold on easy terms at a good figure to a man who would agree to establish a dairy herd. This dairy herd was considered the real cornerstone in the farm organization. On this ready-to-use farm there would be assured



A Good Home Carved Out of the Cut-over Lands and Prepared for Diversified Farming.

(Continued on page 17)

CLOVERLAND MAGAZINE

Permanent Ranch Starts with 1,000 Head of Steers

By HENRY A. PERRY

THE big 50,000-acre ranch of the Cloverland Cattle Company in Schoolcraft County, Michigan, which was purchased last year by Frank King, an old time "cow man" of Arizona, and J. Y. Canon, a live stock banker of El Paso, Texas, is now in active operation with 1,000 head of good grade Hereford, native Colorado steers, as the initial herd.

The steers are two to four years old, most of them being around three years, and averaged about 800 pounds when they arrived in Cloverland. All are the blocky beef type, carrying marked blood lines that insure quick conversion of clover and grass into fat. The shipment is by all odds the best bunch of cattle that has been brought to Cloverland from the West.

The range is in excellent condition and both Mr. King and Mr. Canon believe the steers will average 1,100 to 1,200 pounds this fall. They do not think they have over-estimated the gain, when type of animals, the splendid condition in which they arrived, and the abundance of good feed, are considered.

The shipment left Selma, Colo., May 17, and arrived at Manistique, where the train unloaded, at 11 o'clock the morning of May 22.

Mr. Canon accompanied the cattle all the way, and brought with him two experienced Texas cowboys—Elvin Silliman and Max Mitchell—who will have charge of the herd.

The steers were unloaded from the house track of the Soo railroad in Manistique and driven twelve miles to the ranch. A crowd of interested spectators—men, women and children—stood for three hours, watching the unloading. They hoped to see something spectacular—some wild steers and

reckless cowboy riding—but were disappointed. Native Colorados are seldom wild, and this bunch was more interested in getting on the grass of the commons adjoining the station than carrying on exciting escapades along streets and across yards in the city. They ran down the chute and then quietly commenced grazing. There was no trouble in keeping them rounded up, for there was plenty of fresh, green grass, and they certainly enjoyed their first meal in Cloverland.

A lot of snapshots were taken during the unloading for historical reference to the big day in Manistique when the first 1,000 steers were unloaded in that city, the vanguard of a great industry. While these steers will be grazed only and marketed this



J. Y. Canon, Live Stock Banker of El Paso, Tex.; and Frank King, Formerly of Arizona, at the Unloading Chute for the First 1,000 Steers for Their Cloverland Ranch

arations are now under way for the construction of 40 miles of fence. The ranch is plentifully supplied with fresh water lakes and running streams

glion. Most of the area had been cut rather close, and forest fires had kept down second growth so that the entire range is fairly clear with a good growth of grass and clover.

The swampy areas are valuable assets for a cattle ranch, whereas they would be a detriment and a danger for sheep enterprise. However, these are not big swamps. They are open marsh, and yield a tremendous amount of "swamp ranch" which makes very good roughage and contains ample nourishment to carry cattle through the winter in excellent condition.

The company did not negotiate the purchase for the ranch last year in time to run any stock of its own, but gave free range to several friends having small bunches of cattle which they wished to try out in Cloverland. There were 700 head in all and the experiment was satisfactory. These men will be heard from later.

Considerable preliminary work was done last year in the way of repairing buildings on partially improved farms that had been taken in with the ranch, laying out plots for cultivation and growing all kinds of winter feed, and clearing a trail around the entire ranch for fencing and a fence rider. The 40 miles of fencing will likely be built this year, and many other improvements added of a permanent nature.

The ranch is on such a huge scale that improvements require considerable time, so the owners decided to commence ranging cattle this year instead of waiting until the finishing touch is put onto everything. Accordingly they bought 1,000 head of fine steers to fatten on the ranch while permanent improvements progress. This investment alone approximates \$100,000.

The introduction of 1,000 young steers is only a modest beginning for this big enterprise. Next year the herd will likely be enlarged to 5,000 or 6,000 steers.

Development of the ranch by that time will enable the operators to carry a considerable amount of stock through the winter if deemed advisable, and breeding stock also may be

(Continued on page 36)



Instead of Stampeding, the Steers Made Themselves at Home on the Grass-covered Commons Adjoining the Track

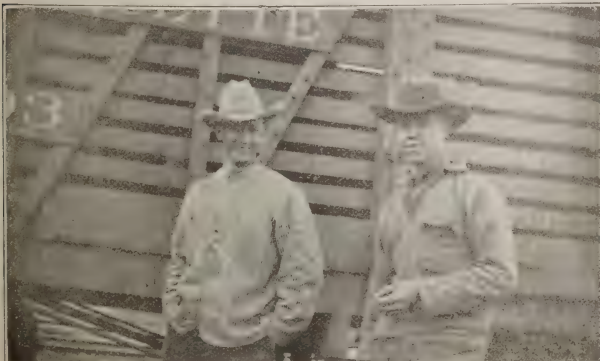
fall, it is the first stocking of a permanent ranch in Cloverland.

The Cloverland Cattle company has 50,000 acres of select range in one solid block near Manistique, and pre-

affording an abundant water supply always close to where a herd may be ranging. The entire area has all been burned over several times and there is a good growth of grass and clover everywhere. There is also some low land that grows thousands of tons of swamp grass every year, enough to winter 10,000 head of steers, according to Mr. King's estimate.

Mr. King came to Cloverland more than two years ago with a heavy shipment of cattle from Arizona for the purpose of grazing only. Results were so satisfactory that he decided to remain and transfer all his live stock operations to the "new live stock country." He interested J. Y. Canon, a live stock banker of El Paso, Texas, and a life-long friend, in the permanent ranch enterprise in Schoolcraft County, Michigan, where he had grazed several thousand head of steers the year before.

Mr. Canon saw the possibilities and joined with his friend, King, in launching the first big cattle ranch in Cloverland. The Cloverland Cattle Company was organized last year and purchased 50,000 acres in one solid block. It is doubtful if a better cattle proposition could have been obtained anywhere in the entire Great Lakes re-



Max Mitchell and Elvin Silliman, Two Texas Cowboys Brought to Cloverland to Herd Cattle. Their Smiles Indicate They Like the New Country.

CLOVERLAND MAGAZINE

Ira Carley Finds "Silver Lining" in Cloverland

By LAWRENCE D. TUCKER

Upper Peninsula Development Bureau

DISCOURAGED because of persistent drought, hard winters, over-crowded range and other misfortunes that had befallen stockmen of the West for years, Ira Carley and Edwin Keene, of Casper, Wyo., pulled stakes and moved their sheep outfit to Cloverland.

When a special train carrying 1,750 head of sheep pulled into Limestone Siding, Alger County, Mich., on the first day of April, 1919, the ground was covered with snow except in patches here and there where green grass and tiny leaves of clover had commenced to show. Listless Carley and Keene, their Mexican sheep herder and two sheep dogs, maneuvered the unloading. The scene was not promising but the sheep scampered away through the snow, delighted to escape from the crowded double deckers, and ravenously tore at the tender green shoots, eating roots and all.

With almost total disregard of what became of the sheep Ira Carley surveyed his new surroundings. As far as the eye could see blackened stumps protruded from the patch work of earth and snow, a clump of green timber here and there breaking the monotony of the view, and an occasional tall dead tree standing like a lone sentinel over an allotted space of barrenness. Carley, his crew, sheep and dogs, were the only living beings in an area bounded by the horizon. The low, squat, dilapidated log huts that had once served for a lumbering camp, made the scene more desolate. There was nothing inviting, nothing encouraging, no matter from what angle it was viewed.

"But it can't be much worse than Wyoming," mused Carley, and he doggedly set about to establish his camp, give his sheep the best attention possible under the circumstances, await developments and pray for the snow to be off the ground before the lambing season, as most of his flock was made up of bred ewes. With almost indifference as the days passed Carley failed to notice how the grass and clover fairly burst from the ground, and only half-heartedly he noted the ewes lambed out well and had an abundance of good milk for the lambs. He was full of apprehension and his mind was clouded with ill-omens.

The sun became scorching hot as the days lengthened and the mottled green of the landscape gradually changed to a yellowish brown. But Carley was accustomed to seeing dry grass and thought little of it, so long as the sheep did well, or even existed, as they had done in Wyoming.

Then one languid, hot day, Carley noticed a column of smoke on the horizon. Almost simultaneously other



Two of Cloverland's Best Boosters, for They Met With Success Here After a Long Period of Hard Luck in the West. To the Left, Ira Carley; to the Right, His Partner, Edwin Keene.

columns of smoke appeared in all directions, and the next day great black billows and ribbons of flame seemed to be belching from the ground everywhere. The sky became a haze and the glaring sun changed into a steady red glow. It was a forest fire, and it was enveloping the Carley-Keene ranch.

Forest rangers had turned out crews to fight the fire, and the army of workers was swelled by volunteers from every settlement, farm and lumber camp for miles around. Carley almost welcomed the shadow of doom, for had he not been born under an unlucky star, had not near-disaster followed his efforts everywhere, was not

this really a fitting end for all his battles against adversity? But the sheep were in danger, and good shepherd that he is, he forgot his hard luck for the time being and turned out with his crew to help fight the fire. For two long weeks sweating men worked with shovel and spade, back-fired, plowed furrows, and did everything else to save the flocks of Carley and Keene, and neighbor, John Corson, over in Luce County.

Just when the battle seemed hopeless, when the men were weary and ready to give up, the over-head sky blackened like the smoke-laden horizon, flashes of lightning met the tongues of flames shooting from the

earth, sharp blasts of thunder deadened the roar of the forest fire. When the clouds seemed to open and the whole country was deluged. For two days a torrent of rain fell. Then the clouds lifted. Not a spiral of smoke could be seen anywhere, and the air was washed clean. The sun beamed down again, hot and steady, and as if by magic the grass and clover obliterated the black mantel spread over the earth by the fire.

There was no danger of another fire and the grass and clover grew faster than the sheep could eat it down. The lambs, and even the old toothless ewes, were getting fat. Carley smiled—a smile of satisfaction, of contentment, the first smile of the kind that had brightened his countenance in many days, or years. He quit cursing his luck, Cloverland, and even Wyoming. He was an experienced sheep man, he knew what his lambs were doing, and he impatiently awaited his day on the market.

His day came on the twenty-second day of October, 1919, when his shipment was sold by Clay, Robinson & Co., in Chicago and his lambs scraped the top of the market. Seven hundred and ninety-five averaged 68.3 pounds and brought \$15.25 per hundred. One hundred and eight averaged 55.5 pounds and brought \$12.50 as feeders. The remainder of the shipment was made up of old ewes.

Carley and Keene were outclassed only by a shipment of sixty-four lambs from the neighboring Upper Peninsula Experiment Station of the Michigan Agricultural College, which went along with their herd. The experiment station lambs averaged 80.3 pounds and topped the market at \$15.50.

The lambs from the Carley and Keene ranch were sold to Armour & Co., and the 795 lambs dressed out 50.10 without cauls, plux or backset. The lambs graded 45 per cent strictly choice, the remainder good and only 50 medium.

John Corson, over in Luce County, had gone through a very similar experience during the summer as Carley and Keene, only his sheep were once surrounded by the forest fire and workmen had cut a hole in the ring to provide escape just before the rain came. Corson shipped 432 lambs to East Buffalo to Clay Robinson & Co., on Nov. 3. The best lambs averaged 77.3 pounds and brought \$14.50 to \$14.65. Forty-three culls averaged 58.4 pounds and sold for \$11.50 to \$12.

The New England Dressed Meat and Wool Company of East Buffalo, reports that 104 lambs from this bunch dressed 51.8 per cent, and the Wels-

(Continued on page 30)



The Ground was Covered with Snow, the Day was Gloomy, and So were Carley and Keene When They Unloaded at Limestone Siding, Alger County, Mich., April 1, 1919. Now the Carley-Keene Ranch is Aglow with Success, and There are No More Gloomy Days.

Westerners Must Adopt Badger Grazing Plan

By FRANK KLEINHAINZ

Professor of Sheep Husbandry, Wisconsin College of Agriculture

Frank Kleinhainz, professor of sheep husbandry, Wisconsin College of Agriculture, is regarded throughout the United States and in foreign countries, as one of the most expert authorities on sheep and sheep raising. Sheep husbandry has been his life work, he has been devoted to his chosen vocation, he has been untiring in research and investigation of every angle of the sheep industry to absorb all the knowledge possible from experiment and experience. He has judged sheep at international, national, state and county shows, his services in capacity of judge covering the period of an ordinary span of life. His judgment of sheep matters is mature and well-founded, and he is still young in alertness to observe and analyze every new phase of the business to which he has devoted a life-long study.

There was some complaint from some of the western grazers who brought their herds to Cloverland last year. These complaints blamed the country for losses, when as a matter of fact the country was not at all responsible. Disappointment where incurred was due to the lack of knowledge of the cut-over land territory on the part of the western grazer, and lack of knowledge of the sheep industry on the part of well-meaning men in Cloverland who had the free ranges to offer. Where care and caution were exercised the western sheep men made a brilliant success, their flocks topping the market or bringing good prices, and they are now permanent ranchers in Cloverland, whether located in Northern Wisconsin, Northern Michigan or Northern Minnesota.

Other westerners recognized their own error in not selecting proper or adequate range, realized they shipped entirely too late in the season to market fat stuff in the fall, announced they had faith in the country and that they would try it again this year but would adopt methods suited to Cloverland conditions.

Some few returned to the west with avowed intention of never returning. Mr. Kleinhainz has diagnosed the ailment, ascertained the cause, and offers the remedy. But an outstanding feature he brings out is this: THAT MANY SHEEP BROUGHT IN WERE IN DEPLORABLE CONDITION, AND HAD THEY NOT REACHED CLOVERLAND WHEN THEY DID, NO MATTER WHAT THE RANGE CONDITION, MOST OF THEM WOULD HAVE DIED OF STARVATION ON THE WESTERN RANGES, ENTAILING A TOTAL LOSS.

The suggestion given by Mr. Kleinhainz may well be read with interest by westerners as well as all persons ambitious for the development of Cloverland. What he says regarding his own state, Wisconsin, applies equally as well to Michigan and Minnesota.

on cut-over lands that I estimated their weight to be between seventy-five and eighty pounds, born in March and April and without any grain. In Douglas county I have seen lamb carcasses hanging in butcher shops, raised on cut-over lands, that weighed alive 100 pounds and as fat as butter.

The experience of sheepmen, as shown by reports lately received from very many of the counties in the cut-over districts clearly indicate at least three very definite things regarding flock husbandry in Upper Wisconsin:

1. That if large flocks are to be placed upon tracts in our cut-over sections, these should be under the close supervision of experienced sheepmen who not only know the nature and habits of sheep but who have also taken the pains to acquaint themselves with the practices followed by successful local flockmasters and methods recommended by those familiar with conditions in Upper Wisconsin.

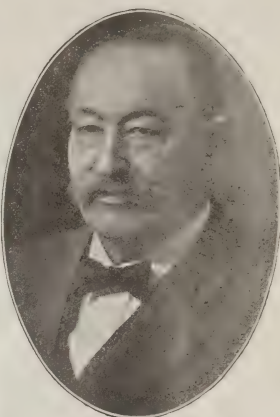
2. That summer grazing does not equal sheep raising as a source of profit in our cut-over sections. Many western sheepmen have been induced to conclude that they could, when drought hit their ranges, graze their flocks onto almost any kind of land in the Great Lakes states, ship them to the markets at the close of the grazing period, and expect big gains and increased prices. Experienced sheepmen in upper Wisconsin counties are practically unanimous in discouraging these rosy expectations. They know that summer grazing under careful management and with favorable market breaks can be made a satisfactory practice but much prefer the year around flock husbandry.

3. That sheep raising could, with proper management, be made a source of substantial profit on many more farms, not only in sections of Southern Wisconsin but in many districts of Upper Wisconsin as well.

The consensus of opinion among the county agents of Upper Wisconsin is that western sheepmen who last year moved flocks from the western ranges to our upper counties will not, if they come again, bring in as large numbers. They give several reasons for this prediction:

1. It is hoped that conditions on the range will not necessitate such large movement again;

2. Experience has taught them that sheep husbandry on the range differs



Frank Kleinhainz, Noted Sheep Expert

widely from sheep husbandry in our more humid climate and on our cut-over lands; and,

3. Freight rates without stop-in-transit privileges seem excessive.

Reports by a considerable number of county agents indicate that range men who placed flocks in their respective districts were at least reasonably well satisfied with the returns. They, however, appreciate the necessity for modification of freight rate schedules, closer observation of grazing seasons, and further study of market conditions. In some of the other counties flockmasters reported heavy losses, part of which could, in all likelihood, be attributed to poor management or inexperience.

There is complete unanimity among the county agents that the smaller did much better than the larger flocks. This statement by the county agent of Douglas county is perhaps typical of the opinions held by observers in all counties: "The small flocks are doing far better and after careful observation I am inclined to doubt the wisdom of running large flocks in this particular section."

While sheep are a big aid in land clearing, yet most sheepmen are not particularly enthusiastic about depending entirely upon sheep as land clearers. It is generally appreciated that sheep need help in land clearing, yet county agents' reports clearly indicate that considerable acreage was grazed by sheep and that the flocks helped greatly in getting the land ready for clearing.

There is considerable difference of opinion among the county agents in respect to whether western sheep pay as well as do native sheep. Some agents are of the opinion that the western sheep are harder and others believe that sheep raised in the northern counties do very much better. Personally we feel that carefully selected western ewes

(Continued on page 16)

SOME time ago I noticed an article in the Drovers' Journal written by C. H. Souter of Lander, Wyo., condemning cattle and sheep pasturing on the cut-over lands in Wisconsin and adjoining states.

At the very outset he is credited with saying that these free pasture lands were heavily stocked, which explains the fact that stock, whether sheep or cattle, cannot do well when there is not sufficient feed for them. He is also quoted as saying that other parties had reported losses of \$2.50 to \$3.00 a head on lambs, pasturing them in the fall on cut-over lands. He expressed the opinion that all who have pastured stock on these cut-over lands were of the same mind. I do not doubt in the least that Mr. Souter lost money on his lambs, perhaps due to his own fault, having them on lands where there was no feed. At any rate Mr. Souter and others were better off bringing their sheep lands than letting them starve to death in the drought-stricken range countries.

Upon seeing this article, I made a survey of the situation. Questionnaires were sent to all county agents in Upper Wisconsin. These men are trustworthy and well familiar with what is going on in their respective counties. From the reports sent in, first I learn that most of the sheep were in very poor condition on their arrival in Wisconsin, second, that some of them were turned on land practically all brush (which of course is no fattening feed), third, too many placed on a small area, and fourth, on marsh land. Under these conditions who would not expect to lose money?

Personally I am very well acquainted with conditions in the cut-over land districts in Wisconsin, having traveled in nearly every county carrying on extension work for many years, not only in villages and towns, but by auto through the country. On these tours I have traveled through sections of cut-over lands on which the clover stood knee high, and not a single animal there to consume it. Many times I have remarked to county agents who drove me around to my sheep meetings with farmers:

"Oh, had I only such feed as goes to waste here for our flock at the University."

I also have visited many individual sheep raisers. In every instance where farmers did not keep a larger flock than they had feed for, their flocks looked very well indeed on the cut-over lands. On the other hand where I saw too large a flock pasturing on a small area, they looked poor. I have seen lambs in July pasturing



No Failures on Ranges Like This and There are Thousands of Acres of This Type of Grazing Land in Cloverland

CLOVERLAND MAGAZINE

Cloverland Presents Its "Case" for Deep Waterway

By JOHN STONE PARDEE, of Duluth

CLOVERLAND has been head and front of this project for opening the lakes-to-ocean route. Cloverland is still in the foreground in the hearings now being conducted before the International Joint Commission to show whether the West wants this outlet, how badly it wants it, and what it will do when it gets it. The first hearing in the United States was at Marquette on May 10th and the commission after swinging through the West as far as the Rocky Mountains and back, returned to Cloverland for some of the most important hearings on the entire circuit at Duluth, Superior and Ashland, running from June 3rd to June 8th.

All through the West the commission has been hearing about transportation shortage, undeveloped resources and economic strangulation—of crops that could not be moved because of transportation shortage, of crops that could not be produced because the products could not be moved, of resources that could not be developed for the same reason, of industry paralyzed and trade throttled because of transportation shortage.

General Manager Holdredge, of the Burlington, told in one sentence the analysis of this transportation shortage when he said: "If I could deliver the traffic of our lines at Chicago it would double the carrying capacity of our present equipment."

In the Duluth hearing the relation of the lakes-to-ocean route to this transportation shortage was clearly brought out. Anyone can see how the capacity of the railroad, as a carrier, may be increased if its cars shuttle back and forth between the loading station and the nearest port, instead of drifting down East to get lost in the traffic jam.

Anyone can see that if ships came through the lake ports for their cargoes the railroad situation would thus be relieved.

At this Duluth hearing the grain

trade, the ore movement, the flow of manufactured products and food stuffs from the West, and the flow of merchandise and raw materials from the East were all analyzed. And one more thing was added. Men engaged in the shipping business showed that cargoes could be loaded at Duluth, either solid cargoes of grain in the same tramp vessels that carry grain between ocean ports, or miscellaneous cargoes with a liberal layer of grain at the bottom in substantially the same sort of boats that now carry package freight between lake ports.

It was shown that there are thousands of ships in the world now engaged in ocean commerce which are now shut out from the lakes, but could easily run to Lake Michigan or Lake Superior if there was a 21-foot channel all the way. Most of the boats in the trade between New York and South America, and most of the boats in the West Indies trade are of dimensions suitable for the proposed channel.

Eighty per cent of the ocean-going fleet could enter the lakes if the present channels were extended to the ocean. Many people, thinking of a

lake carrier, have in view a huge steel box that carries ten or twelve thousand tons of ore down, or brings back that much coal. These boats are not going out on the ocean. They are not built for it. And if they could stand ocean strain they could not be used in miscellaneous traffic. They are part of a machine. They are adapted to the coal dock at one end or the ore dock at the other, and nowhere else. Neither do these boats engage in carrying miscellaneous cargoes on the lakes.

On the other hand, many people, thinking of ocean transportation, have in view the great passenger liners. But these liners carry only the small fraction of the world's commerce. In fact, there are only a very few harbors where they can enter. The business is

done by the medium sized tramp steamer. In the Suez Canal, for example, while it has been deepened to thirty feet, only a very few vessels going through draw that much water, and nearly 90 per cent of the business is done in vessels drawing from twenty to twenty-two feet. Excluding the enormous ore carriers which can do business only on the lakes and only

between those lake ports which are equipped for handling ore, coal, grain, and excluding the ocean liner which can do business only between a few of the ocean ports, these witnesses show that 80 per cent of the ocean-going fleet could be accommodated in the proposed channels and that they are adapted for miscellaneous cargo movement which is waiting for them.

A striking chapter was added to this testimony by Magnus Swenson of Madison, Wisconsin, who besides developing the water powers of southern Wisconsin and serving as food administrator and chairman of the Wisconsin Council of Defense, has managed to find time to be president of the Norwegian-American Steamship Company. This company runs a fleet between New York and the Scandinavian ports. Last year because of congestion in New York harbors they were obliged to shift some of their sailings to Montreal. They also saved money by it and, as a large part of their consignments are destined for the middle west, it was equally convenient.

"The minute the way up the St. Lawrence to the lakes is opened," says Mr. Swenson, "you will find one of our vessels ready to follow it. And she will come up the lakes just as far as she can poke her nose."

The hearings have concluded for the present, but in the fall they will be resumed and the lower lake ports, especially Chicago, Detroit and Cleveland, will continue the tale of undeveloped resources, and the economic strangulation due to transportation shortage.

Within a year the report of the International Joint Commission is to be presented to the two governments. It will then be in order, assuming that the report upon the economic feature is favorable, for Congress and the Dominion Parliament to decide whether these two nations are ready to embark upon a joint enterprise to meet a common need.



Hon. Charles P. Craig of Duluth Whose Untiring Energy Effectually Launched the Great Lakes-St. Lawrence Tidewater Association, of Which He Is Executive Director.

Cloverland Message Is Carried to the Corn Belt

By F. W. LUENING

THE Cloverland story has been carried into the Corn Belt by H. H. Bryant, D. V. M., representing the Cloverland Magazine. In the past month, with assistants in the field, he has toured sections of Illinois, Indiana and Iowa.

He established contact with more than 400 corn belt farmers, each of whom is directly interested in cut-over lands.

The magazine suggested to these men that they visit the north country, and that each of them represent a group of ten or more neighbors. In other words, it was proposed that every such group of neighbors combine, create a small fund, and send one or more of its members to personally investigate possibilities. Of the 400 contacts, more than 300 arranged such groups, and agreed to visit Michigan, Wisconsin, or Minnesota during the coming summer.

The contacts were established by the use of want ads in newspapers, reaching rural population, as well as by personal trips into the rural communities. Newspaper editors, county agents, hotel managers, bankers, business men, and farmers in the Corn Belt were consulted with. The Cloverland story was broadly spread through the Corn Belt, and a selected circulation of the Cloverland Magazine was insured. In no case were efforts directed toward persons who merely expressed a general interest. Attempts were made to treat only with those specifically inclined toward new locations in the Cloverland states.

Tentative itineraries, that would insure a general conception of Michigan, Wisconsin, and Minnesota lands, were outlined, and means for reaching the associations or bureaus engaged in development work were explained.

Corn Belt farmers seeking lands in the north country will visit the various organizations, and development bureaus, the immigration commissioners, and the colleges of agriculture. They will then be aided in viewing land in any part of the states in which they may be interested, and will finally be helped to ascertain ownership when they have made selections of tracts that seem to suit their needs.

"It is evident that there will be an extremely heavy movement from the Corn Belt into the cut-over areas. Corn Belt land has sold at immensely high prices during the past two or three years," says Dr. Bryant. "It also is evident that there will be a heavy movement out of the industrial centers, and into the land, before the close of the present year. Industrial centers are about to experience a period of unrest. It is not probable that the immensely high wages will continue indefinitely, nor that there will be adequate employment for everyone. Consequently many men who left their farms for city occupations will again seek rural surroundings. They will leave the cities in considerable numbers, and return to farms. This means that there will be an influx into the

Cloverland district, where land is comparatively cheap, and possibilities practically unlimited. It is necessary that these new-comers be properly located, and every commercial organization, development bureau, public spirited citizen, and land owner should be helpful in aiding them.

"Land owners generally recognize their responsibilities, and have made provision for practically every type of settler, from the man with very limited capital to the man amply able to pay a large part of anything he may buy. There are various excellent colonization plans in operation. Land is sold outright without improvements and uncleared; it is sold with some improvements and partially cleared; it is sold with a house, barn, some live stock, and some farm tools; and it is sold as fully developed and well improved property.

"So there are sets of conditions to meet every need. Terms also will meet with every pocketbook. Men can buy land without payments of any kind for a period of years; they can buy with a small payment in cash, the balance extended over many years; and they can buy upon a 50 or 75 per cent cash payment, or can pay cash in full.

"It seems evident, therefore, that with the tendency in the Corn Belt, and in the industrial centers, and with the possibilities in the north country now made known through these dis-

tricts through the Cloverland Magazine, there should be a tremendous movement, beneficial to both the country and the new people about to come into it."

The Cloverland Magazine was one more than a hundred business interests, representative of the Great Lakes Basin, which made up the "Hook 'E Cow Special" out of South St. Paul in April.

The "Hook 'Em Cow Special," including ten Pullman sleepers, was arranged by Walter A. Williams, of the South St. Paul Commercial Club, carried, in addition to live stock men and other business men, the Minnesota State Band, and the train was stopped at all of the principal cities in North Dakota and Montana, on the line of the Great Northern railroad.

The participants engaged in the tour with a view to more closely linking the great South St. Paul stockyard center, the western ranges, and the grazing areas of the Great Lakes Basin. They adequately accomplished their purpose.

It is perfectly evident that thoughtful western cattle men see the opportunities on cut-over lands.

During the trip, which penetrated into the largest live stock centers of Montana, including Miles City, Billings, Lewistown, and other points, the Cloverland Magazine again outlined western men the possibilities as they actually exist in the northern half of the three states.

Copies of the magazine were eagerly sought at every stop.

Breeding Draft Horses on the Farm

By GEORGE E. WENTWORTH, Horse Association of America

EVERY great world war of for and by the people has resulted in an improvement in the breed, in the quality and in the number of horses used there. In early times improvement in cavalry breeds followed rapidly on the heels of peace. The horses were built up from the light Arabian by proper crossings with the heavier horses of the Flemish until a horse was developed to carry a Crusader in full armor.

When gun powder was invented it was thought that the services of cavalry would no longer be needed. Napoleon the Great, however, was compelled again to resort to cavalry to follow up the victories gained by his sledge hammer infantry blows supported by artillery. He was forced to retreat from Moscow because of the failure of his transport horses.

Although mechanical power played a great part in the latest world war, nevertheless, the most efficiently served units were those which were well supplied with immense numbers of transport horses purchased in America. Our allies in this war just completed, purchased 1,350,000 mules and horses from this country in addition to what they obtained in their own lands, Canada, Spain and the Argentine. The United States government bought 306,000 horses on this side. It would appear that an efficiently served army must have approximately two horses to every nine men. While we all hope that the day will never come when we shall be compelled to use horses for this purpose again, yet none of us has confidence that we have arrived at the Golden Age.

The kind of horse needed for wars of the future will be the transport horse, weighing from 1,350 to 1,600 pounds, a horse of courage, of good bone and sound. There is a place for this kind of a horse on every American farm. It is a type of horse that will always command a fair price, a type of horse which will do a farmer's work and can then be sold at a profit.

There is a saying that the correct type of horse in any breed, for any purpose, should have three properties of the fox, a fair tail, short ears and a good trot; three properties of the hare, a great eye, a dry head and well running; three properties of the jack, a big chin, a flat leg and a good hoof; three properties of a woman, fair breasted, smooth haired and well mannered; three properties of a man, that's proud, bold and hardy.

I asked a prominent horse breeder of Illinois one day to give me a live horse topic. I complained to him that everybody knew about the evolution of the horse, the history of the horse, the breeds of the horse and the common or garden variety. After listening patiently to my lament that there was a dearth of topics, the horse breeder inquired of me in what part of the country I proposed to expose my ignorance about horses.

I replied, "Joe Daviess County."

"Well," said the horse breeder, "is

that where the Ben Davis apple comes from?"

He had laid his finger upon the sore of American horse breeding. Every state, every community, every country should be famous for something, some particular product grown or manufactured. There are California and Florida fruits; Michigan and Jersey peaches. There is a corn belt. There is a cotton country. There are tobacco states, etc., etc. In Europe you can buy a Percheron horse in Perche; a Belgian horse in Belgium; a Norman horse in Normandy; a Clyde in Scotland; a Shire in England; a Suffolk in Suffolk County, and so on through the long list of well bred horses. You go to Missouri or Kentucky for saddle horses, to Kentucky for trotters and pacers and to Virginia for hunters, but where in the United States do you go to buy a particular type of draft horse? There are nine great breeding states and all have horses of various grades and scattered through them

without any regard to distribution are all kinds of the pure breeds.

A careful study of the horses bred in Europe teaches us that these horse breeds get their name and fame through community breeding. The Belgians obtained their high position in horses by sticking to their Belgian horses. Community breeding has been the secret of success of the Perche. When the postchaise passed out of use in France, the Percheron dealers increased the weight and size of their breed by careful selection and good feeding because they had a proper pride in their horse. When a community adopts and standardizes a production, the product increases in value and in quality very rapidly because each member has assistance from the experience of his next door neighbor, whether that experience has been good or bad. A community unconsciously standardizes its products. Community breeding offers the advantage of co-operative marketing. Co-operative

marketing and community breeding go hand in hand.

In speaking of community breeding and co-operative handling of live stock, I mean no forced community but rather a large farming section whose interests are identical which sees the advantage of development along similar lines. Personal equation has as much to do with agricultural matters as it has to do with astronomy. It is not absolutely necessary that each and every farmer of a given section keep exactly two pure bred mares of identical breed, but it is advisable that they should keep them of the same quality. It is not absolutely necessary that only one breed of hogs or sheep or turkeys or hens or identically the same kind of fruits, grains or vegetables should be raised by all, but

better results will be obtained if that particular one thing for which that community is noted is raised by all. Over large sections of the United States there should be standard crops on standard soils with standard live stock and standard machinery.

Standardization means simply the elimination of the unnecessary. Manufacturers of farm implements have been unable to get together and decide what is necessary, and further they have never shown any indication that they possessed any idea whatsoever to decide or to eliminate. Not only is the product of manufacturers non-standard but the machine by which their product is made is non-standard. For the manufacture of non-standard machinery to produce non-standard goods, still other non-standard machinery has to be made, by yet other non-standard things. Here is an endless chain. The demand for standardized farm implements should be made by the farmers of lone sections producing standard crops.

In Holstein, the province which formerly belonged to Denmark and which has just been reunited with the mother country, the Holstein farmer has for more than a century been taking great care in continuing the same kind of a mare upon the farm. The son is educated by the father to know the best type of mare to work and to breed from for the continuation of his draft power units. The Holsteiner breeds to certain strains of blood which his education teaches him will produce a working mare which will produce also a good colt. He leaves nothing to chance. He does not breed his mare one year to one line and the next year to a far different one. In the event that the first colt does not answer his expectations of what he should get by breeding to the blood which his education tells him is the right blood, he hunts for another sire having the same blood but a different conformation. He knows that he is in the right family but has selected the wrong individual. There is nothing haphazard about his breeding operations.

The horse buyers who were sent here from France, England, Italy, Belgium and Switzerland attended the In-



Four Mares Well Worth Having on Any Farm



It Costs No More to Keep a Good Team Than a Poor Team. These Belgian Mares Pay Big Profits in Work Done and Colts Raised.

(Continued on page 14)

The Illustrated Monthly Magazine of Greater Cloverland

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THE ANDREWS PUBLICATIONS,
313, 315, 317, 319 Quimby Avenue,
Menominee, Michigan

Entered as second-class matter January 27, 1916, at the post office at Menominee, Michigan, under the Act of March 3, 1879.

Subscription price, postage paid, \$1.00 a year in advance.

Advertising rates on application.
Make all remittances to Cloverland Magazine, or to R. M. Andrews, Publisher.

JUNE, 1920

The County Agent

EVERY big effort needs leadership. In every city there is a commercial organization. Heading it is a secretary. He does not know all about the business of the business men who make up the organization. But he is able to observe, to study, to bring together these men when the need arises, and to carry out details in their affairs.

The County Agent holds a similar place in agriculture. He may not know all about all kinds of farming. But he is able to observe, to study, to go about from one practical farmer to another, and is in a position to bring together the farmers of his community when the need arises.

He differs from the single farmer in that he gets a composite picture of his entire county. One farm may require one thing; another some other thing. And each farmer is most deeply concerned in what his particular farm most needs. The county agent soon learns that the secondary needs on many farms are similar. For instance, he may learn that on almost every farm in his county, a particular type of fertilizer best improves the crops. And yet, this fertilizer has been a secondary matter as compared with other individual problems. The county agent, seeing the universal need, induces the use of this fertilizer, and thereby adds a lot to the wealth of every farm.

The county agent has opportunities to serve. The farmer can do no better than to use the county agent for every conceivable purpose. If there is something wrong with the "south 40," why not ask the county agent to have the soil analyzed? If a machine part is broken, and manufacturer has gone out of business, why not ask the county agent to trace the matter, and try to find someone who can make the replacement? If there is difficulty in getting railway cars, why not ask the county agent's help? If there is doubt about the water supply, why not have it analyzed through the county agent?

These are minor things. And yet, they are the very things the farmer is likely to neglect, in the presence of more important work.

In the meantime, the county agent is, of course, engaged in bigger problems. It is he who arouses interest in pure bred live stock. It is he who pushes pure bred seeds. It is he who studies transportation questions, and marketing conditions. It is he who organizes farmers' clubs, and is behind farmers' meetings. The county agent is an instrument for immensely valuable service. In most communities, he is carrying out the work with great ability. If he isn't, the community should have a new county agent.

But, like the commercial secretary, the county agent can't get very far alone. He needs the co-operation and the backing of every man and woman in his territory. He is human. He needs suggestions. He needs help, and he needs enthusiastic support. He needs big, generous minds around him—minds that are ready to suggest, but big enough to remain un-

ruffled if the suggestions are not acceptable. Some projects can be handled. Others cannot.

Incidentally, the good county agent should receive proper pay for his services. His work brings many thousands of dollars into his community each year. It is but right that he should receive a fair proportion of these dollars. It is no longer fair to ask him to give service for small and inadequate compensation.

Every county should have a county agent, should see that he is a really good county agent and should pay him a really good salary.

Achievement

BIG ACHIEVEMENT is the result of the combined effort of many men.

A great vessel crosses the seas. We look upon her with wonder. No single man could have built her. It required many men, all working toward the same end, to fashion the ship.

Railroads span the continent. They transport millions of persons and millions of tons of freight. They were built because many men combined to build them.

Great mines have been opened; huge factories supply our needs—because many men, getting together, worked toward a single end.

But even when men have gotten together and agreed upon accomplishing a single purpose, they are helpless unless vital materials are provided, and money offered to pay them while they labor.

The great ship gave no return until it was completed, launched, and actually sailing the seas. Then it began to yield revenue. And only then could those who combined to build the ship begin to get returns from their work.

The railroads, crossing the country, demanded money throughout the period of their building. They gave no returns until they were completed, and actually were operated.

But the men who combined to build these would not wait. They demanded money, and demanded it at once, and throughout the period of the building.

So, behind great achievements is capital. Before many men can combine and achieve great things, they must have capital to support them. Capital is asked to take the risk of failure. It is asked to bear the losses. It is asked to pay, throughout the construction period. And when it has done these things, we are prone to question the right of capital to share in the profit of big achievement.

We say the work was done by many men, and we are right. But we fail to remember that many men cannot be bound together, nor held to a single purpose, and a single task, unless capital pays them and takes the risk.

In agriculture, there are many big achievements yet to come. Agriculture has been slow to avail itself of capital. Agriculture has operated in small units—single farmers on single farms have tried to fulfill single purposes. Single men, working alone, have tackled wild land, and raw land, trying to carve homesteads out of it.

Every credit is due these men. Wonderful, indeed, are the results—as results by single men go. But small, indeed, are those accomplishments achieved under the guidance of capital, and the combination of many persons. Comparing agricultural effort with other business, the comparison must leave the thought that really big accomplishment is the accomplishment of many men working together, and backed by capital. It would seem that many farmers, working together, would soon influence capital. They would receive its backing, and would achieve more largely than they are doing today.

However that may be, the fact remains that capital, properly used, makes human life bigger, broader, better, and easier.

The fact remains that we, who are prone to criticize capital, cannot but look about and note that the best things we have are the things created for us, or made possible, by capital, and the combined efforts of many persons.

Range Cattle

STRANGE things have happened in the wild and woolly West.

The two-gun man is obsolete. The West finds little profit in plate glass windows shattered by the Colt 44.

The roulette wheel has lost caste. The west found but limited business advantage in these dubious devices of yore.

And now reform has hit the very ranges themselves.

Modern cattle kings are looking with disfavor upon herds set adrift in the mountains, bade to thrive there whether or no, and asked to face draught and blizzards and snow drifts.

The Western cattle man seems to be looking with some favor upon the methods of the East. Perhaps this is rank heresy. And yet, we learn that in the cattle country, barns are going up, shelters are being prepared, hay stacks are becoming fixed adjuncts to the ranch. We learn that each year greater acreage is taken for the culture of alfalfa and grasses. Even the despised silo rears its peaked head upon the Western horizon.

In other words, it would seem that the Western cattle man begins to show a preference for plebeian farm appurtenances, as against the loss of four or five thousand head of live stock by draught and storm each season.

The West seems to be recognizing that the cattle business has become a business, and is no longer just a gamble. "Ranching" is rapidly becoming "farming." The ranges are becoming pastures. Something more than the sky is wanted overhead, and something more than a precarious vegetation under foot.

The significant thing about all this is that if the gamble, the losses, and the elemental methods are to be taken out of the cattle business, then the business becomes "farming," as understood in the East—or more specifically in the Great Lakes Basin.

If winter shelter is necessary for success on the Western ranch, if hay ought to be grown, and if silos will add to the business safety—then why not conduct the cattle business in a country where hay grows naturally, without irrigation nor irrigation?

Why not conduct it where verdure is natural, and where material for barn and silo is at hand?

With proper preparation and winter care, cattle and sheep thrive remarkably in the Great Lakes Basin. In the past, operators have scorned proper shelter and care. If they are now coming to it, then we commend to them the Great Lakes Basin, its cut-over acreage, its grass covered uplands, and its fertile valleys.

High Price of Shoddy

IT IS the high price of shoddy that makes clothing so costly, not the high price for wool. There is only one method of bringing the high price of shoddy clothing down, and that is through the operation of the proposed "Truth in Fabric Law" now before Congress.

This law merely intends to require the manufacturers of fabrics to designate the amount of shoddy, hemp, jute, wood fiber, feathers, fur, cotton and wool with a label on the cloth, and that garments made from this cloth shall bear a similar label so that the purchaser may know just what he is buying.

If it is possible to induce Congress to see the wisdom of this measure and enact it into law, the price of clothing will surely come down, or at least, the buying public will not be compelled to pay the price of a virgin wool suit for one of shoddy. Shoddy, when it is known, can not compete with wool, and it requires no great mental effort to conclude that the public will balk on paying \$75 and \$100 for a suit of clothes made wholly or in part of shoddy, while a virgin wool suit should cost no more. And a virgin wool suit should cost no more for the reason that no manufacturer can possibly weave into the suit more than \$8 or \$10 worth of the highest priced wool, and a spread of \$90 between the cost

of scoured wool ready to be spun and the finished suit is too much for the average man to consider fair. And if this is the spread between the cost of scoured wool and a virgin wool suit if one can be purchased at all, what must be the spread between the cost of reworked "wool" from the rag piles and other fiber junk and the suit?

Merchants and their salesmen are just as easily deluded with shoddy as the purchaser. It can not be detected until after it has been worn a few times. Then it begins to hang like a gunny sack, will not hold a press, commences to pull apart, loses its lustre and knap, and is soon ready for the rag pile whence it will find its way back to the shoddy manufacturer, and who knows, you may buy the suit over and over again.

It remains to be determined whether the combined influence of honest manufacturers of wearing apparel, honest wholesalers and retail merchants, and the entire buying public will offset the influence of this little band of rag pile millionaire pirates with Congress. The only issue is honesty against chicanery, square dealing against crooked dealing, fairness against deception.

The proposed law does not prohibit the use of shoddy, but asks that the buyer be informed of its presence by a label on the garment. Is there anything wrong about such a law? If there is, then the pure food and drug act is wrong and should be repealed, and the public left to buy blindly every adulteration and concoction, dishonest manufacturer might conceive, upon the representation that it is pure, wholesome goods. But the pure food and drug act is right in principle and application, and will not be repealed. The "Truth in Fabric Law" is just as right in principle and application and should be placed along side the pure food and drug act as an emphatic expression from Congress that the public will be protected in buying food and clothing.

Better Bred Horses

ALONG with the campaign for better bred dairy stock, better bred hogs, better bred chickens and better beef cattle and sheep, ought to be included better bred horses. Just why farmers pay so little attention to breeding their horses when the horse is the most valuable animal on the farm, is a mystery. The farmer might get along without a cow, or a pig, or a chicken, but his lot would indeed be hard and his efforts accomplish little without the horse.

It costs no more to raise a good horse than a scrub, and perhaps less. A well bred colt becomes a horse that may be depended upon to do good work, but the scrub is always a scrub and his single tree constantly grinds on the wheel. He can't pull his share of the load but eats as much as his teammate that does all the pulling and he requires as much attention and as much time in harnessing and unharnessing.

A well bred horse increases the efficiency of the farmer, and is a valuable asset because it will command a good price on the market. Bred an blood pays in farm horses as well as in cattle, sheep and hogs, if not more so. Bred up the farm horses into heavier types that will answer all purposes on the farm, and will also be sought on the market.

The farmer gambles each year with the weather, crop diseases and insect pests, and the consuming public must accept his winnings or losses. This year there will be a decreased acreage of all food products due to farm labor shortage and the big gamble is still played.

Sheep return two cash profits each year, and there is no reason why the should not increase 100 per cent each year.

There are thousands of acres of good grazing land in Cloverland awaiting sheep and cattle.



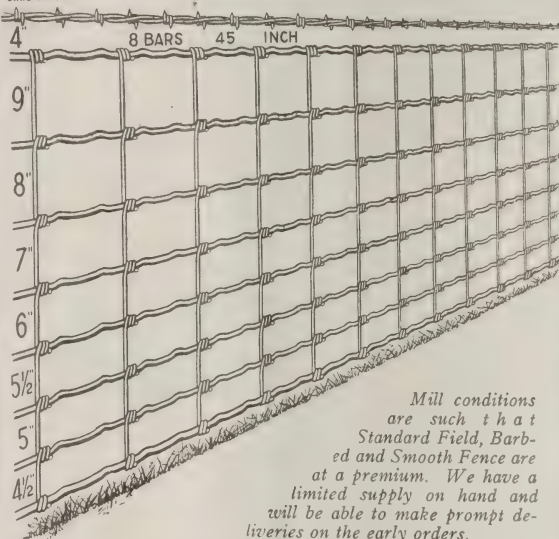
Call! Call for Northern tissue, now. A refinement of old methods gives to this dainty bathroom paper an evident superiority and a remarkable economy. Insist on the right paper this time. Call! Call for Northern tissue, now.

These superlative rolls—that “last longer and give greater satisfaction”—come to you out of the north woods under the most hygienic conditions. They are sanitarily made at Green Bay, Wisconsin, by the Northern Paper Mills—also makers of fine paper towels, for shop, office, kitchen.



Now Is the Time to Place Your Order for All the Wire Fencing You Will Need This Year

DISTANCE
BETWEEN
BARS—INCHES



Mill conditions are such that Standard Field, Barbed and Smooth Fence are at a premium. We have a limited supply on hand and will be able to make prompt deliveries on the early orders.

WE carry a complete stock of sheep and cattle Fencing, Roofing and Hardware Fixtures for stock sheds and ranch houses. Our warehouses are so situated within the Cloverland territory that we are able to make prompt deliveries.

A complete line of Dynamite Fuses and Caps for spring land clearing

Send us your requirements and prices will be sent you the same day your letter is received.

Northern Hardware & Supply Company

Wholesale Jobbers

Long Distance Phone 400

MENOMINEE, MICHIGAN

DOCK COAL

CENTRAL WEST COAL CO.

MENOMINEE, MICHIGAN

FARM ANIMALS

By H. H. BRYANT, D.V.M.

Hydrophobia (Rabies)

HYDROPHOBIA, or rabies, is an acute infectious disease, rapidly fatal, to which all warm blooded animals are susceptible.

Rabies is generally associated with dogs, because of their wandering nature and tendency to fight. Their chances of infection are high, and because the dog is the pet of man, and has freedom of movement, he generally is the spreader of the dread disease.

Infection is caused by the introduction of the germ, (although the germ has never been isolated) into the system of the victim through a break in the skin, or mucous membranes. The infection is caused by the introduction of the saliva into the wound, generally from bites.

The course of the disease varies, depending on the location of the bite. An infection of the head, for instance, will be followed more rapidly by symptoms than a similar wound of the foot.

The disease is essentially a nervous affliction, and may appear in the forms known as "furious" and "dumb" stages.

The first symptoms are restlessness, possibly unusual friendliness, sometimes crossness and fright, and may show a fondness for indigestible objects, such as sticks, small stones, straw, etc.

After one to three days, this stage changes to the furious stage, characterized by incinations to wander far from home, to bite anything that comes in its way. The voice changes, becoming hoarse, and more like a howl than a bark.

Afflicted animals do not especially fear water, and may even attempt to drink, but owing to partial paralysis of the throat muscles, this is impossible.

This stage is followed by the third and last stage—paralysis, which gradually becomes general. Because of this paralysis, the animal is unable to bite, although it may attempt to. Death always follows, usually from the fourth to sixth day.

The dumb form of rabies is the same, only that the symptoms of the second stage are not in evidence.

Not all cases of bites, or wounds, from rabid animals develop rabies, and although the "Pasteur" treatment is effective in preventing development of the disease, there is no cure for it, once the symptoms appear. The Pasteur treatment now is available to every physician, thus making it unnecessary for the patient to go to some institution for treatment.

If one is bitten by a suspected rabid animal, the first thing to do is have the wound thoroughly cauterized. Do not kill the animal, but shut it up in a tight pen, and if it is alive after ten days, no rabies exist, and the case may be dismissed.

If the animal has to be killed, be careful how it is done. Do not shoot through the head or in any way injure the brain, as the brain has to be used in the laboratory diagnosis. After killing the animal, carefully separate the head from the body, pack the head in ice, and send it immediately to the State Board of Health. If you receive a positive report that the animal was rabid, immediately consult your physician for "Pasteur" treatment, or report in person to the State Board of Health.



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PERPETUAL
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NEW HOME**

**CALORIC HEAT
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The CaloriC requires but one chimney—no extra chimneys, mantles or fixtures needed—only 6-foot cellar required.



CaloriC installations are made from blue prints prepared by CaloriC engineers who have had years of unequalled experience in pipeless heating.

Put a heating system in your new home that will be an investment—that will pay dividends in comfort and convenience—that will positively pay its own cost in the saving of fuel. The famous patented

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has a proven record of saving $\frac{1}{3}$ to $\frac{1}{2}$ the fuel over old systems. Heats all the rooms in buildings of 18 rooms or less, through one register. An unequalled success in homes in every state. Many in this community.

The money-back guarantee of the manufacturers, The Monitor Stove Company, Cincinnati, Ohio, and over 100,000 satisfied users, protect you and back up your judgment in buying a CaloriC.

Quick installation in old homes or new. No plumbing nor alterations. And remember—your satisfaction or money back.

Morley-Murphy Hardware Co.

Distributors

GREEN BAY

WISCONSIN



Do Not Wash Eggs

ACCORDING to the United States Department of Agriculture, over 5,000,000 dozen eggs spoil, needlessly each year, in cold storage, because someone has let clean eggs get wet, or has washed dirty eggs. Careful investigation has shown that from 17 to 22 per cent of washed eggs spoil, while only 4 to 8 per cent of unwashed dirty eggs spoil, when stored. Water removes from the egg shell the gelatinous covering, which keeps the air and contamination from the inside of the egg. Once this protective covering is removed, moulds and germs readily enter the egg, through the porous shell, and quickly spoil the contents.

Country store keepers, and others who ship eggs for cold storage, should not pack washed eggs, but should sell them for immediate consumption.

Eggs showing more than 5 per cent loss, about one and one-half dozen per case are liable to confiscation, and the owner, or shipper, is liable to prosecution. So carefully candle eggs before shipment.

The egg wastage in the United States is enormous, amounting to millions of dollars. It has been estimated that nearly 17 per cent of all the eggs produced in the country become unfit for human food before reaching the consumer, because of improper handling.

Much of this loss could be prevented by providing clean, dry nests, not washing the eggs, by gathering them daily, by storing in a cool dry place, and by marketing at least once a week—twice a week if possible.

Always bear in mind that eggs are nearly as perishable as meat or milk, and rapidly spoil by improper handling. When we consider that the poultry products of this country amount to more than \$600,000,000 annually, nearly all produced on the farm, it surely seems that more care is justified.

How to Ship Pigeons

OLD pigeons sell best alive. Ship in coops that are high enough to permit them to stand. If shipped in boxes, allow plenty of air spaces on the top and sides, as pigeons smother readily.

Squabs should be shipped when full feathered, just before they are ready to leave the nest. Plump fat birds, weighing from six to eight pounds to the dozen, are most desirable.

Squabs are easily killed by pinching the neck just back of the head, or by sticking them in the neck or through the mouth so they bleed readily. This is the best way as the carcasses, so killed, have a white bright appearance when dressed.

Squabs can be shipped with the feathers on, or removed. If removed, have them perfectly clean. Do not remove entrails. Leave the head and feet on.

When shipping during hot weather, have birds thoroughly cooled, then packed in cracked ice.

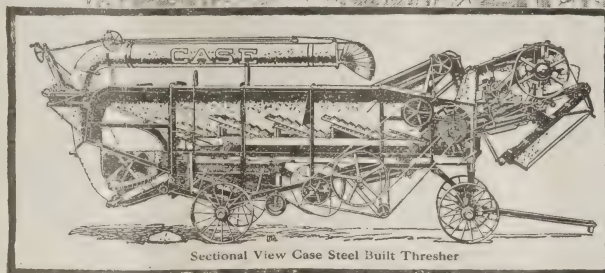
Always remember fat squabs, neatly dressed and properly packed, always bring the fancy prices.

Sterilization of Dairy Utensils

TO PRODUCE milk or cream of a high quality, great care must be exercised in the cleaning of dairy utensils. Ordinary washing is not sufficient to free them from contamination, and sterilization becomes necessary.

Live steam is one of the most effective sterilizers, and probably one of the scarcest things on the farm. Most of the sterilizers on the market require a boiler, but the United States Department of Agriculture, in Farmers' Bulletin No. 748, describes a simple steam sterilizer that can be made at a cost of from \$5.00 to \$10.00. These plans are sent free, on application.

Consistent use of this simple sterilizer by the farmer will save him many times what it cost him.



Sectional View Case Steel Built Thresher



Look for the EAGLE Our Trade Mark

Case Threshers Save Your Crop

GOOD threshing is the climax of good farming. It's what you have been working for ever since you began preparing ground for seeding. It's just as important as fertile soil, summer showers and harvest sunshine,—and it's up to you. If you do not own a Case Thresher, the next best thing is to employ one.

The Case Steel Built Thresher, in any of the six sizes we manufacture, is the machine of *clean threshing, thorough separation, perfect cleaning and unequalled saving.*

You owe it to yourself to save all you harvest. You can do it with a Case Machine. It successfully handles Rice, Flax, Peanuts, Peas and Beans, Rye, Oats, Barley, Wheat, Clover and Alfalfa, Millet, Buckwheat, Timothy, Orchard Grass, Kaffir Corn, Sorghum, Broom Grass Speltz, Hungarian Grass, Red Top, Blue Grass, Milo Maize, Sudan Grass and Feterita.

After passing the cylinder, where all the grain is threshed and most of it separated, the straw is shaken,—shaken—shaken;—230 shakes a minute. Note the improved straw-rack, the great separating surface and ample space for straw.

Write for catalog of Case Steel Built Threshers showing sizes suitable for the individual farm or for custom threshing on the largest scale.

J. I. CASE THRESHING MACHINE CO., Inc.

Dept. CM-6, Racine, Wis., U. S. A.

Making Superior Farm Machinery Since 1842

CASE
POWER FARMING
MACHINERY

To avoid confusion, the J. I. CASE THRESHING MACHINE COMPANY desires to have it known that it is not sold and never has been interested in, or in any way connected or affiliated with the J. I. Case Plow Works, or the Walrus Tractor Company, or the J. I. Case Plow Works Co.

NOTE:

We want the public to know that our plows and harrows are NOT the Case plows and harrows made by the J. I. Case Plow Works Co.



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For three centuries, "Old Faithful" HEMLOCK has been a leading wood for all farm uses. Hemlock barns and houses our great-grandfathers built are still in daily use.

Such a record is not made without good reasons, and these good reasons may as well be working in your interest.

We will gladly supply you free with any of the "Old Faithful" building books below. Coupon in each book good for FREE, FULL-SIZE, WORKING plans at your lumber dealer's. Send his name please.

No. 1—Town Houses	No. 5—Ford Garages	No. 7—Hog and Poultry Houses
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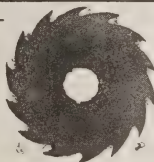
We spread the good news about "Old Faithful" HEMLOCK but we do not sell it. Get it from your LOCAL LUMBER DEALER.

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HEMLOCK
300 years on American Farms

Menominee Saw Co.

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SAVE THE LIFE OF YOUR MOTOR—USE

**Barkhausen's High Grade Gasoline
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BARKHAUSEN OIL CO., Green Bay, Wis.

Filling Stations—West Walnut St. Bridge, Main and Monroe

Breeding Draft Horses on the Farm

(Continued from page 9)

ternational Live Stock Show at Chicago. In fact they attended several. Every buyer from abroad who expressed his opinion and many of them did quite freely, admired our progress in the breeding of sheep, hogs and cattle. They had no words of praise for our American horse. Of course some prejudice colored their views and yet nearly all admitted that we were their equals if not their superiors in the breeding of all live stock except horses. They attributed our failure to produce good horses to the ignorance or carelessness of those who work them upon the farm. All stated that their farmers had a definite notion of what they expected to get whenever they bred their mares and that such did not seem to be the case in America.

There is a greater scarcity of horses of draft type and of cavalry horses than of sound farm chunks and express horses. There is a heavy demand on the markets for horses for coal and ice wagons and for the potato fields of Maine.

It seems to be the opinion of the best farmers that the draft horse weighing from 1,800 to 2,000 pounds is larger than is required for farm work. The conservative farmer figures that a horse weighing from 1,350 to 1,600 pounds pays for himself by the time he is 6 years of age in farm work and produces a profit when sold. On this class of horses the farmer has no doubt at any time that he can get his money out, as the saying is. To produce a draft horse of a ton weight much feed has to be consumed and more care given to the horse. The price paid for a ton horse doesn't compensate the farmer for his rearing. This is especially so because the horse of this size must be nearly perfect. A

slight defect takes more off his value than it does in proportion to the farmer's working chunk. The ton horse perfect in conformation is, however, the advertisement. Advertising pays.

In agricultural districts such as the Cloverland section you can ascertain through the agricultural department, agricultural experiment stations, the county advisers or the agricultural college what crop the soil is best suited to, what breeds of edible live stock will prosper—then why not the best horse? The climate and water, soil and sub-soil and conformation of the country, of the terrain, have much to do with the development of draft horses, be the breed what it may. The selection, breeding and feeding the kind of horse which any section demands for its work can be developed in that section with a few experiments, more quickly than it can be determined by successive trials and frequent changes in the character of its horse stock by importation. This was clearly shown by the development of our trotters and pacers and in a lesser degree in draft horses in Ohio, Indiana, Illinois and Iowa.

Horse breeding today is at its lowest ebb due to the causes frequently enumerated in the agricultural papers, the high price of feed, the high prices paid for cattle, sheep and hogs and the low prices which have been paid for horses up to this present spring, and to the fact that there was no apparent immediate prospect of a future market. The investigation of the Horse Association of America has disclosed that there will be a tremendous demand for horses, particularly draft horses and mules in 1922 and for several years thereafter.

The farmer is a manufacturer of horses and can produce his goods at

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**Marinette County, Wis., and Menominee County, Mich. At the Gateway of Cloverland
LEARN THE FACTS**

YOUR CARD will bring complete Cloverland information

FARMS—All sizes, locations, and prices, with or without stock, tools and equipment.
UNDEVELOPED LANDS in any quantity for farming, stock-raising, grazing or investment.

MENOMINEE ABSTRACT AND LAND COMPANY
Box 64, MENOMINEE, MICHIGAN

WHAT THE

I. Stephenson Company Trustees

WELLS, MICHIGAN

Offer to Homeseekers on the Sunny Side of Cloverland, the Upper Peninsula of Michigan

—Choice of 400,000 acres of land at prices ranging from \$20 to \$30 an acre for cut-over land.

—A climate the same as upper New York, northern South Dakota and central Minnesota—this district is 600 miles south of the much advertised wheat belt of Canada.

—A variety of soils fit for all crops grown in the north temperate zone.

—Good roads, good schools, good water and climate.

—Home markets that now are forced to depend on outside communities for much of their food.

—Railroad service that brings 10,000,000 people within a night's ride for farm products, and the equal of that afforded the farmers of Indiana, Illinois and Iowa.

Full, Dairying and Live Stock,
Truck Gardening, Grains,
Root Crops

—An unsurpassed fruit country, protected by 1,000 miles of shore line along Lakes Michigan and Superior—a practical insurance against frost damage. A choice of five lines of farming.

cost. He should read the signs of the times and prepare himself for the day when the horse of quality will be in greater demand than ever before known.

Many teams of drafters have been sold recently on the Chicago market for \$900 and over, and more would have been sold for that price had they been found in the country.

There is an increasing demand for horses from the oil fields of Texas and Oklahoma.

With the adjustment of money exchange between foreign countries, an export trade will spring up and from the indications given by prospective buyers from Poland, France, Germany and England, there will be no style of horse not wanted. More trotters, more standard bred trotters with papers and records have been shipped across this year than ever before. Poland wants small horses. France and Germany want large. And they must be bred.

A little more care should be taken in preparing horses for the eye of the buyer for central markets. A farmer can hardly expect to get the highest prices for his wares unless they are burnished up so as to make a good showing. It is as necessary to put a horse in slick condition as it is a hog, in order to get the most out of him.

There is no money in raising scrub horses for the market. Neither do thin, under-sized horses without bone find a ready market for the reason that these horses cannot be grown into or made to carry weight on insufficient bone. A farm horse of size weighing 1,600 pounds in working condition can be made in the city into a draft horse from 1,750 to 1,800 provided his underpinning is good. Good horse buyers look at the bottom and not at the top. Their first consideration is the foot, the ankle, the pastern, the regular bone and the length of the coupling. Finding the bottom good, the horse buyer asks to see the horse move. The horse must be straight going, free in action, almost without blemish near the joints. A farmer of Cloverland would do well to consider raising and using of a horse suitable for its conditions which will ultimately be valuable upon the market. The steady cold winters and the cool summers of the Cloverland district give to the horse what is known as "climatic energy," which in turn imparts vitality and a vigorous constitution, an ideal condition for the development of a fine type of draft horse.

Farmers' Traffic Department

TO ASSIST farmers in their transportation problems, a traffic department of the Michigan State Farm Bureau has started work. It is being operated along lines identical to those of a similar department of any large manufacturing concern or board of commerce.

The operations of this department will include, primarily, assistance to farm bureau members, of which there are now close to 60,000 in Michigan, in obtaining consignments and making deliveries of shipments efficiently and economically. All rate cases, of state and interstate nature, will be closely watched. Every effort will be made to protect farm interests in classifications of commodities shipped or received. There will be service on loss and damage claims for farm bureaus.

Eventually an inspection bureau in this department will be operated to assist carriers and also educate farm bureau members in improved methods of packing, loading of cars, etc. In charge will be Frank Coombs, formerly with the Michigan Fruit Exchange.

"SHEEP MANAGEMENT"

By Prof. Frank Kleinheinz
The Noted Sheep Judge and Expert of the Wisconsin College of Agriculture, Madison

PROF. Kleinheinz has had thirty years practical experience in handling breeding, feeding and judging sheep. He has judged sheep at the International Live Stock exposition at Chicago, many state fairs and numerous county and district exhibitions. For thirty years he has had charge of the sheep division of the Animal Husbandry Department of Wisconsin Agricultural



College. He is one of the best recognized authorities on sheep in the United States and enjoys a splendid reputation abroad.

THIS splendid book of 320 pages, illustrated with 100 fine plates on—

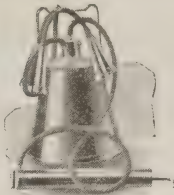
Sheep
Management
Breeds and
Judging
Price \$1.60

This is a book any farmer now raising sheep, or any farmer contemplating sheep raising SHOULD have.

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CLOVERLAND MAGAZINE
MENOMINEE MICHIGAN

Your Opportunity!



YOU BOUGHT

A mower for use on your farm because it was a time saver—because it was too hard work to continue using a hand-scythe: didn't you?

A seeder because you got tired of walking back and forth over your land with a bag of grain and scattering it by hand: didn't you?

A binder because you found it enabled you to take care of a field of grain faster and more efficiently than to cradle it by hand and have someone follow you up with a rake and tie the grain in bundles: didn't you?

YOU have been and are putting in modern barn equipment because you know that every modern method is a saver of time and labor;

IF YOU have ten (10) or more cows—
YOU are going to put in a milking machine for the very same reason that it is a time saver and labor saver—

BUT

When it comes to that—you must look for a machine that is—

Simple in construction;
Easy to keep clean;
Easy to operate;
Easy to install;
and
The most sanitary

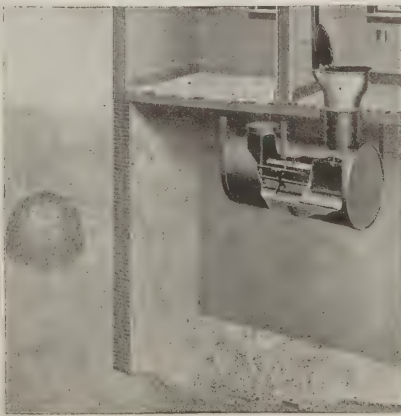
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SUCCESS *Open Valve* MILKER

COVERS EVERYONE OF THESE POINTS.

Our booklet H-3, giving detailed information, will convince YOU that YOU

Do not
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do it
this way
any more

Anderson Sales Co.
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YOUR home is not complete without proper facilities for taking care of waste matter.

The
Lav-olet

disposes of excrement in a highly sanitary way and is absolutely odorless.

Complete information upon request

THE STANDARD STEEL CORPORATION
1253 30th St., Milwaukee, Wis.



MORE MILK MORE BUTTER



MAKE US PROVE IT

SULLIVAN FARMS
James Sullivan, Owner

Barker, Minn., March 1, 1920.

The J. L. Ross Co.,
Superior, Wisconsin.

Gentlemen:

I will admit I did not fully appreciate the real value of your feed, "No. 11 Dairy Feed," until I put my cows on test. I put ten cows on test and every one of them made A. R. O. records. It is more than you ever claimed for it. My experience in carefully watching all cows during the test showed the cows need more protein than our farm grain and crops furnish.

Then your feed supplies the cows a good maintenance ration as well as the milk and butter fat producing qualities. When I had a few cows not producing a high test in butter fat or a heavy flow of milk, I diluted with ground oats and barley and made your feed go farther.

I recommend your No. 11 Dairy Feed very highly. Without it I could not expect to get the production that I do. Until I used it my cows were just average producers. I am very well pleased with it.

I just received the last order O. K.

Yours very truly,

(Signed) JAMES SULLIVAN.

Ask your dealer. If you prefer, write us direct for prices and some further dollar-and-sense facts.

SAVE FREIGHT SAVE TIME SAVE MONEY

THE J. L. ROSS COMPANY
SUPERIOR, WISCONSIN

Made In Greater Cloverland

*The Sweetest Money Crop
the Farmers Grew in 1919*

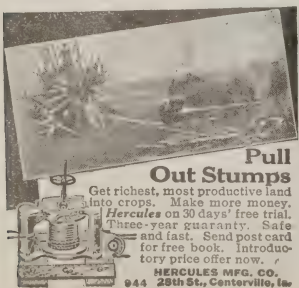
\$625,000

PAID TO FARMERS FOR
SUGAR BEETS
1919 CROP

BY THE

MENOMINEE RIVER SUGAR COMPANY
MENOMINEE, MICHIGAN

ESTABLISHED FOR SEVENTEEN YEARS



**"REPUTATION
SEEDS"**

For Northern Gardens

Ask for catalog and free
sample packets

DULUTH FLORAL CO.,

Dept. B,

Duluth, Minn.

Westerners Must Adopt Badger Plan

(Continued from page 7)

make exceedingly desirable breeding stock.

It was the exceptional shipment of western sheep which came to Wisconsin in good condition. Apparently, the stock left the range in bad shape and the days in transit made conditions worse.

Following are a few statements in respect to the opportunities for sheep raising which are typical of those expressed by county agents and other observers:

"The raising of sheep in general in this county (Lincoln) is a mighty good thing. First, as an assistance in clearing land, and second, as a profitable animal industry."

"Very good on high land." (Rusk County).

"I think we have considerable land in Ashland County which is suitable for sheep raising and in certain sections is about the only way the land can be put to use."

"Sheep raising will be on the increase as farmers learn more about their care and sheep raising will be pushed." (Forest County).

"My observation leads me to think that prospects for sheep are most excellent in sections where the land is rolling enough to provide proper drainage." (Taylor County).

"I believe that more should be done to encourage sheep raising in the north, but I am strongly of the opinion that they should be raised in small flocks. I believe that any effort made along this line will repay for itself." (Douglas County).

"Sheep do well here in farm flocks where proper care is taken of them." (Marathon County).

"Think opportunities are excellent for those who handle sheep as a farming proposition and winter their breeding stock. We do not think much of the summer grazing proposition unless combined with an all-year-around plan. Western ranchers who do not clear land and winter any stock do not appear to be following a practice which will be permanently successful." (Marquette County).

This canvass among the county agents supports us in our belief that there is a big place in Upper Wisconsin for more sheep. We are just as firmly convinced that only those men will succeed in sheep raising who are willing to give the business of flock husbandry careful study and close attention to the details of sheep raising. We feel certain that criticisms of Upper Wisconsin as a sheep raising sec-

tion have been based upon the unfortunate experience of a few men who likely moved flocks in bad condition onto ranges ill adapted to sheep grazing and possibly under the supervision of men unacquainted with the details of successful flock husbandry under Wisconsin conditions.

Thousands of western sheep will be pastured on the cut-over lands in Upper Wisconsin this summer. If good judgment is used in the selection of pastures and if the land is not overstocked, success will undoubtedly follow.

Those who contemplate grazing sheep on cut-over lands this season will do much toward reducing losses by observing the following suggestions:

1. Do not bring in sheep which are nearly starved to death on the ranges.
2. Select the pastures where clover and other grasses are abundant. Do not believe that sheep can be fattened on brush alone.

3. Do not bring in too many sheep for the amount of pasture available.

4. Hire men who understand handling sheep under Upper Wisconsin conditions.

5. Consult successful sheep men in the locality and follow their advice.

6. Familiarize yourself with Wisconsin conditions.

7. If you intend to keep sheep over the winter, prepare early for the necessary feed and shelter.

8. Do not expect to get rich in a single season.

9. The opportunity is offered you to make a success if you will do your part.

County agents in every part of Upper Wisconsin report that most of the sheep from the west were in poor shape when they arrived in Wisconsin; that some of the sheep were turned onto land which was practically all brush; that too many sheep were placed on the land and that marsh land, unfit for pasturing sheep, was used. Under these conditions, who would not expect to lose money?

On my trips through Upper Wisconsin, I have traveled through sections of the country where clover stood knee high and where there was no stock to consume it. I have visited many sheep raisers in this section. In every instance where the farmers did not keep a larger flock than they had feed for, the sheep were in excellent condition. If the pasture was overstocked, the sheep looked poor. I believe in the future of Upper Wisconsin as a sheep country.

Wool Growers Are Organizing

IN THE News Letter, published semi-monthly by the Wisconsin Division of Markets, Director Nordman says of the plan for co-operative marketing of the wool clip of the state:

"The work of organizing the Wisconsin Division of the Fleece Wool States Growers' Association is being pushed forward at this time, meetings being held in all parts of the state at which time the organization work is taken up. The growers are taking a hold of the work in fine shape and the outlook for this year's pooling operations is

very bright."

"The wool marketing division of the Equity is also being organized and is lining up growers who will market through their organization. Every Wisconsin wool grower should be a member of either one of these two co-operative wool marketing organizations, and interested parties should write to either P. J. Stevens, Cylon, who handles the Equity wool marketing or W. F. Renk, Sun Prairie, secretary of the Fleece Wool States Growers' Association."

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Dairymen Must Soon Produce Better Quality of Product

TO meet foreign competition, dairy farmers in the United States must be able to produce a better quality of product and produce and market it more economically and more efficiently, according to specialists in the Bureau of Markets.

Arrivals and shipments of Danish butter are already affecting prices on the New York city market. Argentina is producing nearly three times the amount of butter and cheese consumed, and some of the surplus may be expected to come to this country or compete with our products in foreign countries. Before the war Siberia was rapidly extending its dairy industry, and when conditions become settled in that country it may be expected to come back as a factor in the world's market. Recently there have been signs of interest in dairying in South Africa, and the industry as developed in New Zealand and Australia must be reckoned with.

If the dairy products manufactured in the United States are of a better quality than those from other coun-

tries they need not fear competition. Canada's cheese industry illustrates this. A strict system of government supervision in the training of cheese makers, in the operating of the factories, and in the grading, marketing and exporting of the product, exists there. This has tended toward an improvement in the quality of Canadian cheese until it ranks with the finest on the English markets.

The dairy industry in Argentina has grown rapidly since the beginning of the war. Before the war butter exports from that country totaled 3,262 tons a year; in 1918 they were five times that. Cheese exports were far exceeded by the imports in 1913. Now the conditions are reversed—over 6,000 tons of cheese were exported in 1918.

Today most of these exports are going to European markets, but should conditions become favorable it may be expected that some of them will come to this country. The Bureau of Markets warns dairymen to be prepared to meet this competition.

Stumps Dictate Diversified Farming

(Continued from page 4)

summer and winter food and, as a corollary to this dairy feature, would naturally follow calves, pigs and chickens and the usual interesting and valuable train of dairy farm accessories. Everyone familiar with cut-over conditions understands immediately what a broad foundation for success his ready-to-use dairy farm affords its new owner. This plan is typical and whether inaugurated by arm promoters or by the settler himself is correct and successful.

The latent agricultural possibilities the cut-over country are slowly becoming an asset to the state. In order to accelerate this process, recognition and encouragement ought to be granted the adoption of a broad state policy in relation to farm and home development in Northeastern Minnesota. The cut-over country is worthy of consideration from any agricultural view-

point. The actual accomplishments in the older cut-over sections are promise and assurance of what is possible everywhere throughout this territory. The stump problem, the brush, drainage or fire menace problems incident to home establishment herein are real problems and big ones. To attack these in a fashion which appeals to people today, that is on a large scale, calls for the marshalling of all the forces interested in Northeastern Minnesota.

Consideration is now being given such a policy in Minnesota and opportunity soon will be granted interested parties and associations to come to the aid of this movement. In the meantime, the smaller features of home-making in the cut-over territories, such as removal of stumps, drainage, soil surveys, etc., will receive that attention to which their importance entitles them.

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Shooting the Rapids at the Soo is Filled with Thrills, but Not Dangerous

The Soo, Its Locks, Scenery and History

By WILLIAM H. BRIGGS

CENTURIES of history have been mirrored in the beautiful River of St. Mary—history of which the focal point has been the city which evolution has changed from the original Chippewa "Bowating" to the French "Sault de Gaston" and "Sault de Sainte Marie" to the popular Americanized title, "The Soo." While St. Augustine in Florida—credited with being the oldest American city—was still far from adolescence, Bowating was a thriving Indian village of over 2,000. In fact, this was the leading Indian settlement in 1634. The redskin recognized the strategic site long before the white man ever heard of America. Early explorers imagined here was China, or that China was nearby, for reports had come to civilization that here was a race of swarthy-skinned people who grew no beards and who had little if any hair.

To Etienne Brule, the French pioneer and interpreter for Champlain, is given the honor of being the first white man to turn the first leaf in the white man's history of our present metropolitan Sault Ste. Marie. The names of numerous others, whose titles and efforts find place in history, have been identified with the Soo and the eastern end of Cloverland, the latter term being the latest successor to what was once looked upon as a part of the Chinese Empire and later became known as the New France.

It was Champlain who changed the name of Bowating to Sault de Gaston in honor of the younger brother of Louis XIII, of France. It was in 1668 that the first attempt was made to establish a permanent white settlement at the Falls of St. Mary and from then on into the early 1700's this small beginning became commercially important through the activities of the American Fur Company, organized on the American side by John Jacob Astor and out of which the Astor millions came into being, and the Hudson Bay Company, organized on the Canadian side of the river and for many years during the early history referred to as "The Company."

It was in 1668 that the Jesuits, Marquette and Dablon, founded a permanent mission here making it the first white settlement in the state of Michigan. These early missionaries together with various explorers tell much of the peculiar customs of the Chippewa or Ojibway tribe, the former term being that most convenient to the English tongue, while the latter is what the Indians at this point called themselves.

Authorities disagree over the meaning of the word, the majority agreeing on these two definitions: "They who roast their prisoners to a crisp," or "those who are expert in torture."

We are prone to think that Voodooism, or cannibalism, is a scourge confined to the South Sea Islands, and if one were to tell you the eating of human flesh was once common within the present confines of the United States, you would probably put him down in your category as one eligible to membership to the Ananias Club. However, if we credit the word handed down to us through the last three centuries—word emanating from pioneers whom we are taught to look upon as the founders of this country, we must accept their statements which offer preponderating evidence to show that cannibal feasts were common enough in ancient times at the foot of the rapids where the present city of Sault Ste. Marie is located.

The Chippewas were known as a brave and warlike people, not a whit behind the Iroquois in cunning and strategem, bravery or cruelty. The murderous Iroquois, when foraging in the north far from their homes, scrupled not to torture and eat their prisoners on the victorious battlefields; nor did the northern Chippewa fail to retaliate when time and opportunity offered.

While not addicted to constant cannibalism, it was the custom among practically all the tribes in ancient times to torture their prisoners in various diabolical ways, dismembering their bodies, reserving the heads and hearts of the bravest for the chiefs, other dainty morsels being partaken of freely by the bucks, squaws and children of the village. Such feasts always had a certain religious significance, and the courage of the roasted enemy was supposed to be assimilated by the fortunate gourmand.

Another equally potent reason encouraged the habit. It is a mistake to infer that the Indians feasted continuously in the toothsome delicacies of the forest, field and stream. During the winter, game often withdrew to remote points and the hunter frequently returned from a long day's tramp empty-handed and despondent. Again, for some unaccountable reason the whitefish left their familiar haunts and for the time being this food was lost to the hungry inhabitants of the Indian tepee. We all admit that self-preservation is the first law of nature which holds equally true with either white men or Indians. Rather than let their women and children starve in times like these an Indian would seek out his enemies to provide sustenance for himself and family. Of course the basic idea is repugnant to one group of humanity, to another it presents no particular repugnance, so ignoring that sole point the cannibal feasts became to the Indians a square meal and nothing more.

Every effort was made by the Jesuits to impress their charges with the enormity of this foul practice. Soon after the coming of the white man, a known cannibal was characterized as "windigo," meaning an outcast, and was carefully shunned by the other Indians. The early writers credited the Indians to this extent: those who were cannibals ate human flesh from the necessity of warding off starvation rather than from choice. Instances are on record where the stronger of a family sacrificed the weaker of their relatives, the strongest surviving the last of the whole family.

The events of paramount interest to the Chippewa were the want or abundance of food. Then as now the food supply was an ever recurring topic of conversation. The summer months for the Chippewa Indian were periods for rest, sport and trading; the winters for hunting. In the winter he went forth at dawn and came home at sundown, spent with fatigue. His wife took off his moccasins, placed before him what food she had, or perhaps no food at all, if his efforts to procure game had been lately unsuccessful. Next she examined his hunting pouch, finding the claws, beak, or tongue of the game, or other indications which told her what it was and where to find it. She would then go out and bring it home. After being refreshed the hunter related the events of the chase, smoked his pipe and went to sleep. The next day he began the same thing over again.

If unsuccessful he ate, if there was food, and said no word, nor did any of his wives (he frequently had more than one), or children dare inquire concerning his good or bad luck. Who his hunger had been satiated he so evenly related the adventures of the day. He blamed the women for his ill luck, either through their not having given sufficient attention to his commands or having given wrong bones to the dogs. Never did he blame himself for ill luck.

Many interesting stories are told of Chippewa fortitude. Occasionally on fought desperate battles with wild game or was injured by accidents in the forest. The Indian had either training, or instinct, which told him how to dress his wounds even though alone and far from help. That the understood the human anatomy thoroughly is indicated in a story affirmed by the wife of Schoolcraft, who by the way, was a favorite with the Chippewas. Mrs. Schoolcraft tells of a Chippewa, who, with his wife, was on a hunting expedition. They were far from home when it became evident that the squaw was about to bear child. Difficulties arose and the husband, deeming it necessary in order to save the young mother's life, performed a Caesarean operation, saving the infant and mother and later bringing her home to the village at the Sault.

This entire story might be given over to Indian legend and fact all which would prove interesting, but what you to know that it is not all in Indian lore that Sault Ste. Marie appeals, so we will leave the beginning of humanity at the Soo for this more modern, although everything has its garnishing of early days at

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the old and the modern so intermingle that separation is difficult.

For example, there is Fort Brady, a barracks of no mean proportions and carrying the atmosphere of modernity, yet this fort had its nucleus nearly two centuries ago in a little wood stockade on the river front below the rapids where the Federal building now stands. The original site of Fort Brady is the northern terminal of the Dixie highway.

The present fort is ideally located on a plateau overlooking the city. That the Soo offered a commanding and strategic position was early recognized by the French. In 1750 the Marquis de la Jonquiere, governor general of New France, sent Chevalier du Repentigny, an officer of the French army, here with a detachment of soldiers to build a palisaded fort which was garrisoned during the period of the French government.

After the close of the French and Indian war, in 1762, Lieut. Janette came with a detachment of British soldiers and garrisoned the post for a time. Fire destroyed a part of the buildings soon after the arrival of Janette, after which it was abandoned for a time as a military post.

Gen. Lewis Cass, then governor of the territory of Michigan, visited the Soo in 1820 with a small military escort at the direction of the War Department. Cass found the British flag flying near the old military stockade and nearly precipitated a war with the Indians by hauling it down and running up the Stars and Stripes in its place. As a result of Gen. Cass' report, Fort Brady was established, named for Col. Hugh Brady, who afterwards became better known as Gen. Brady. Brady came to Sault Ste. Marie in July, 1822, with a battalion of infantry from Sacketts Harbor to re-establish and garrison a post at this important point.

The site of the palisaded fort built by the command was practically that of the old French and afterward British post. For seventy years after Col. Brady occupied this post the Stars and Stripes floated continuously over a garrison of United States soldiers and, until the barracks, becoming antiquated and the grounds inadequate. A new site was secured about a half mile south of the United States ship canal and modern buildings erected. The site was chosen by Gen. Phil Sheridan, who was then commander of the army. He visited the several proposed sites in the neighborhood, giving his approval to the one finally selected. The garrison marched out of the old and occupied the new post in October, 1893.

Military men vouch for the salubrity of the Lake Superior climate here. They maintain that here one may obtain natural cure for malaria, hay fever, asthma and fevers contracted in semi-tropical and malarial climates. The health-giving qualities of the climate and water at fort Brady have been proven many times when troops from service in Cuba and the Philippines, arriving fever-stricken, weak, emaciated and unfit for serv-

ice, have been restored to full health and vigor within a few weeks, or months at the most. Many men from the war-torn fields of France recuperated here. In summer thousands of civilians go to the vicinity of Fort Brady and the Soo to obtain health, strength and a new lease of life.

There has been talk of abandoning Fort Brady, but sound arguments for it being maintained are advanced. Scarcely more than a half mile from the Fort are the United States ship canals and locks which carry lake traffic over the rapids of the St. Mary's river. Through these locks passes the greatest inland commerce of the world, greater by far than the world's commerce which passes through the Suez or Panama Canals.

These canals and locks afford cheap transportation for the millions. Should they be put out of commission for any reason, from any internal or external cause, the resulting damage would be appalling.

It seems safe to say that the business of this great water way, if it is maintained and protected, will cease to grow only when the maximum development of the country it serves is reached. Spend a half day on the locks and you get a better idea of what their value to shipping really is. Fifteen minutes is sufficient to lock two 500-foot boats through. There are several locks and each is busy constantly, there usually being a line of waiting ships above and below numbering all the way from five or six to a dozen. The pathways of Great Lakes transportation here converge like the streets of a great city do at the point which is known as "the center of town." State and Madison, Chicago; Forty-second and Broadway, New York, both are comparable to the traffic at the Soo. However, the Soo sees this maelstrom of traffic twenty-four hours a day, whereas the hubs of our Eastern and Western metropolises have a high tide and ebb tide every day.

Citizens of the Soo, yes, of all ports and territory that are supplied by the Great Lakes shipping, insist that these government works are worthy of consideration and should be policed by United States troops to minimize the danger from mob violence if nothing more. There are times of unrest and need is all the greater, they declare.

More than \$16,000,000 is the investment of Uncle Sam in conquering the nineteen-foot drop between Lake Superior and the St. Mary's river below the rapids, to date. Other work under way promises to raise the investment to more than \$25,000,000.

The locks at the Soo have been characterized as, "the greatest locks in the world." Volume of commerce passing to and from Lake Superior during the eight-month season in 1916 amounted to approximately 92,000,000 tons, or about three times the traffic through the Suez canal, and twelve times the traffic of the Panama canal in its best year up to that time. The freight traffic passing the Soo locks in a month is nearly equal to the total traffic of the Panama canal for the



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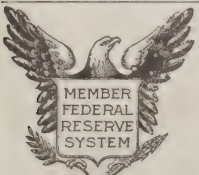
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first three years of its use. Single cargoes of about 14,000 tons each are frequently carried by the 600-foot steamers. During the season of 1915 the average number of vessels passing the locks was 100 per day, or one passage every fifteen minutes.

Prior to 1855 when the State lock opened, the movement of freight from Lake Superior was entirely by boat to Sault Ste. Marie, where the cargoes were unloaded and portaged, or trammed, a mile and reloaded on boats. In 1851 about 12,600 tons passed over the tramway portage. The State of Michigan constructed the first ship canal, which had two locks arranged in tandem, each with a lift of nine feet. This was in 1853 to 1855. Then came the Weitzel lock, 515 feet long, completed by the United States government in 1881, in which year control passed from state to national government.

About this time a number of nationally prominent engineers visited the Weitzel lock and expressed their opinion that it would be sufficiently large to handle the largest boats that ever would be built for traffic on the lakes. What the engineers thought then has been disproved to the extent that nearly 20 per cent of the lake freighters exceed in length the Weitzel lock and nearly all have a greater draft than the Weitzel lock will accommodate.

Six years after the Weitzel lock began operating the second, or Poe lock, was started. This has a length of 800 feet and is 100 feet wide. This lock was not completed until 1896 and it represents an investment of \$3,000,000. When this lock was projected it was thought that it would accommodate four of the largest lake freighters that ever would be built for lake use, but within a short time after its completion lake freighters grew in size until only one of the vessels of the largest class could be locked through at a time.

In 1908 work on the third lock began, this being opened in 1914. It measures 1,350 feet long and eighty feet wide with a draft of 24½ feet. Since 1914 another lock has been built which is a counterpart of the third.

The building of the locks has encroached upon the beauty of the rapids of the St. Mary's river, so much water being diverted through the canals and locks that there is little left to splash down across the rocky, nineteen-foot fall of the river that once furnished one of the natural sights of the Soo. These rapids always teemed with rainbow trout and even now great quantities are to be had there. The skilled Indian could hold his canoe in the rapids at will and fish where he desired. For many years tourists rode the rapids in canoes made almost as steady as a lake steamer by the Indians who maneuvered them. As new locks have been built they ever encroach upon the river bed that once carried a raging torrent of water. Not only the canals and locks, but a giant hydro-electrical plant, one of the largest in the world, taps the river above the falls and harnesses the current to produce thousands of electrical horsepower, this combination being responsible for the exposure of rocks in the river bed that once were covered by the rushing waters emptying out of Lake Superior.

On the banks of the river alongside the locks is a government park and several government buildings. The offices of the government on the locks are ideal examples of architecture and the marble-finished interior of the main building is of a rare finish and quality. The color of this marble is different from any I ever have seen before and I shall not attempt to describe it. Let me say this, though, it will be worth your while to inspect these buildings. Fortunately you can now, though during the war a military guard was thrown about the locks and getting near them was far more difficult than riding on the observation platform of a train crossing the Mississippi, or some other large river before the armistice was signed. It simply could not be done.

(Continued on page 22)

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How Wisconsin Does It

By MARK FOOTE

MICHIGAN can well follow the example of Wisconsin, not only in the ways and means for making its 16,000,000 acres of waste land productive, but in methods of getting the men and women to go back to the land, in the opinion of Henry A. Moehlenpah, member of the Federal Reserve Board and former president of the Wisconsin State Bankers' Association. Mr. Moehlenpah, as the organizer of two mutual farm financing organizations, was instrumental in loaning \$10,000,000 on Wisconsin cut-over lands and the placing of thousands of contented and happy families on the farms of his state.

"If the city man expects to escape a further increase in the high cost of living he will have to get behind the farmer and supply the money and credit required to produce the things needed to feed and clothe the world," said Mr. Moehlenpah. He perhaps has done more than any man in the country toward the development of just the kind of idle lands that Michigan has.

Like Gov. Sleeper, Mr. Moehlenpah is a country banker. His home is in the little town of Clinton, Wis. A number of years ago he saw the possibilities of development of the cut-over lands of his state. He began to preach and print propaganda in favor of settlement of these lands. Then after he had aroused the enthusiasm of the people for the proposition he got down to the practical side of the question. He chartered a special train and took a group of bankers, investors and prospective settlers over the lands of the state.

The result was organization of the Joint Land and Stock Association, which loaned \$6,000,000 to native Americans and others descended from German, Belgian, Polish and Scandi-

navian stock. The loans were made on easy terms and the families which colonized these lands are so contented that they have paid back more than \$1,000,000 of their borrowings. More than 100 country and city bankers took stock in this organization and have since stood back of it. A few years later when the federal farm loan act was passed Mr. Moehlenpah organized another company under the terms of this act. This second company was instrumental in loaning \$4,000,000 more to men and women who took up farms and now are prosperous.

"This is the time to start a movement of this kind. The world was never more in need of food or more in need of influencing the city populations to go back to the land. All the workmen, foreign and American, now have money. They have it tucked away in their socks and bedticks. They also have an inborn desire to some time own a piece of land, a forty or an eighty which they can call their own. What we need is to get the priests and preachers interested in this movement as well as the bankers. They can lead their flocks into the wilderness and keep them contented and happy.

"Our government, through the operation of the federal farm loan banks and the joint stock land banks, can do much by way of extending credit for long time periods at low rates. But it remains for the country banker to use those long time credit facilities of the government so that he may always have ready and ample funds with which to meet the short time credit demands of the farmer and other legitimate demands of his community."

The "Wisconsin idea" of long time loans to finance settlers is taking hold in other communities.



Hints to Home Gardeners

If your garden is planted at the right time you will have a better yield. There is only one planting time.

What you get depends upon what you plant and how carefully your garden is tended.

Weeds will grow without cultivation, but worth-while things won't.

A man is judged by the kind of a garden he keeps.

The seed of success thrives best in the soil of a savings account in your local bank.

**FIRST WISCONSIN
NATIONAL BANK**
.. Milwaukee ..

WE are keenly interested in the development of the agricultural and grazing opportunities of Cloverland.

What helps any part of this Empire of the North helps it all.

**Calumet & Hecla Mining
Company**

JAMES MacNAUGHTON

Vice-president and General Manager

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**The Citizens National
BANK**

of GREEN BAY

Invites Accounts from the
Stockmen of
Cloverland

Capital and Surplus, \$500,000.00
Undivided Profits, \$50,000.00

These Strong Cloverland Banks Are Ready and Willing to Give Every Possible Cooperation to New-comers. They invite Correspondence.

First National Bank of Calumet

Calumet, Michigan

Capital \$200,000.00

CALL IN AND SEE US
We are always pleased to serve you

Officers: John D. Cuddihy, Pres.; Edward Ulseth, Vice Pres.; Edward F. Cuddihy, Cashier; Daniel C. Harrington, Asst. Cashier; Pierce Roberts, Asst. Cashier

First National Bank of Menominee

Menominee, Michigan

Resources Over \$2,000,000.00

Oldest and largest Bank in Menominee County and under same management for 32 years
Depository for United States and State of Michigan

Officers: G. A. Bleich, Pres.; John Hines, Vice Pres.; C. W. Gram, Cashier; A. J. Klumb, Asst. Cashier

First National Bank of Bessemer

Bessemer, Michigan

Capital, Surplus and Profits,
\$150,000.00

Oldest Bank in
Gogebic County

The Lumbermen's National Bank

Menominee, Michigan

One of the Oldest and Strongest Banks in Cloverland

Officers: Warren S. Carpenter, Pres.; Wm. Webb Harmon, Cashier

ESCANABA

is the leading city in Cloverland

The leading bank in that city is the

Escanaba National Bank

Correspondence invited

Commercial Bank of Menominee

Menominee, Michigan

"The Bank of the People"

Invites correspondence from prospective settlers. You can bank by mail with us

The First National Bank of Alger County

Munising, Michigan

Officers: William G. Mather, Pres.; G. Sherman Collins, Vice Pres. and Cashier; John N. Korpela, Asst. Cashier

Houghton National Bank

Houghton, Michigan

United States Depository

Capital \$200,000
Surplus \$200,000
Undivided Earnings \$250,000

Officers: J. H. Rice, Pres.; W. D. Calverley, Vice Pres.; A. N. Baudin, Vice Pres.; C. H. Primodig, Cashier; R. T. Bessalack, Asst. Cashier; Edward Kump, Asst. Cashier; F. C. Stoyke, Asst. Cashier

The State Bank of Ewen

Ewen, Michigan

Officers: L. Anderson, Pres.; J. S. Weidman, Jr., Vice Pres.; E. J. Humphrey, Vice Pres.; A. M. Anderson, Cashier. Directors: L. Anderson, Calderwood, Mich.; J. E. Weidman, Jr., Trout Creek; E. J. Humphrey, Ewen; J. N. Howlett, Bruce Crossing; J. F. Fogelson, Ewen; Nugent Dodds, Ewen; A. M. Anderson, Ewen.

The Newberry State Bank

Newberry, Michigan

Capital, \$30,000.00

Surplus, \$8,000.00

A General Banking Business. Commercial and Savings Departments
3% Interest paid on Savings Deposits

Officers and Directors: F. P. Bohn, Pres.; W. G. Fritz, Vice Pres.; L. H. Fead, Vice Pres.; E. M. Chamberlain, Cashier; E. L. Fritz, Andrew Weston, J. C. Foster, Matt Surrell

First National Bank of Iron River

Iron River, Michigan

Capital, \$50,000.00

Surplus, \$20,000.00

We invite letters of inquiry regarding Iron County

Officers: Ellsworth S. Coe, Pres.; Wm. J. Richards, Vice Pres.; A. J. Pollard, Cashier

First National Bank of Sault Ste. Marie

Sault Ste. Marie, Michigan

Since 1886 this strong bank has been interested in the growth and development of Chippewa County.
Correspondence invited

Officers: R. G. Ferguson, Pres.; Otto Powla, Vice Pres.; Chase S. Osborn, Vice Pres.; E. H. Mead, Vice Pres.; Fred S. Case, Vice Pres. and Cashier

First National Bank of Marquette

Marquette, Michigan

Over \$2,000,000.00 Resources

Officers: Louis G. Kaufman, Pres.; Edward S. Bice, Vice Pres.; Charles L. Brainerd, Cashier

First National Bank of St. Ignace

St. Ignace, Michigan

The oldest and largest Bank, and the only National Bank in Mackinac County

Your business inquiries will receive prompt and courteous attention

Officers: O. W. Johnson, Pres.; E. H. Hotchkiss, Vice Pres. and Cashier

Marquette National Bank

Marquette, Michigan

Capital and Profits, \$160,000.00
United States Depository
We invite correspondence

Officers and Directors: J. M. Longyear, Pres.; D. W. Powell, Vice Pres.; Chas. H. Schaffer, Vice Pres.; F. J. Jenkinson, Cashier; H. R. Fox, Asst. Cashier; E. A. Brown, Asst. Cashier; Daniel W. Powell, Austin Farrell, Chas. H. Schaffer, Frank J. Jenkinson, A. T. Roberts, R. P. Bronson, E. L. Pearce, J. E. Sherman, J. D. Reynolds, John M. Longyear

The Marquette County Savings Bank

Marquette, Michigan

Officers and Directors: H. L. Kaufman, Pres.; S. R. Kaufman, Vice Pres.; G. A. Carlson, Cashier; O. E. Barber, Asst. Cashier; E. J. Hudson, E. S. Bice, Louis G. Kaufman, Chairman Advisory Committee

The Soo, Its Locks, Scenery and History

(Continued from page 20)

The Michigan Northern Power Company, which has harnessed the St. Mary's river, operates a plant which ranks as high if not higher than any other in horsepower developed. Water coming out of Lake Superior is diverted through a race with a sharp fall and operates turbines which produce upwards of 45,000 horsepower. This power is used by many of the industries which thrive at the Soo, among them being the Union Carbide Company, adjacent to the power station, which is the largest plant producing calcium carbide in the world. Other prominent industries of the Soo include the Northwestern Leather Company, which produces 900,000 sides of grain leather and 700,000 sides of split leather annually; the Soo Woolen Mills, pioneers in the north, utilizing the ever-increasing wool supply from the sheep industry in Cloverland.

Before the first settlements were made at the Soo, various Indian tribes made annual pilgrimages and camped beside the roaring rapids of the St. Mary's river. Le Saut de Sainte Marie was the Indian annual vacation rendezvous for rest, sociability, health and fishing, just as it is now for the successors to the redskin. Since the white man's advent, the summer population of the Soo has been measured only by the limit of constantly increasing hotel accommodations. In addition to the paramount resort advantages of pure water, long, cool nights and an atmosphere cleansed by the constant breezes blowing over a wide expanse of cold water and an unbroken forest of pine and balsam, the Soo is unique in the variety of entertainment offered. The city provides every pleasure associated with a metropolis and the operation of the greatest locks in the world, combined with the constantly changing

panorama of the passing vessels, serves as an attraction of absorbing interest. Interesting side trips by daily steamer and launch service, both up and down the river provide infinite variety of scenery and the most wonderful out of door life in America. Ferries constantly ply between the American and Canadian Soo, each of these cities being about equal in population, although the American Soo has much the best of it in a comparison of natural beauty. Of course, the Canadian Soo is in the shadow of the blue haze that tops the Laurentian Mountains on the Canadian side, but, withal, the American Soo has the edge when it comes to attractions that appeal to the tourist.

The Soo is the gateway of a vast wilderness, and is justly termed the hunter's paradise. The famous rainbow trout fishing in the Soo rapids, the excellent deer hunting and duck shooting of the vicinity, the brook trout fishing of the north shore, and moose hunting in Canada, guarantee the best of sports at all seasons of the year.

As a winter playground, the Soo rivals the winter sports of Montreal and Quebec; real, unbroken winter, wild and beautiful from December to March, gives four months of hockey, skating, skiing and every known winter sport.

Across the river, or rather, within the river, from the Soo is Sugar Island, something similar to Belle Isle in the Detroit river between the Michigan and Canadian sides, but Sugar Island is much larger and picnicking on the island always has an appeal.

The international bridge which carries trains between the Canadian and American Soo is the largest cantilever bridge in the world.

(To be continued)

Excellent Farming and Grazing

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and up ——— Easy Terms

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Land Department NEGAUNEE, MICH.

Faith in the Future

("Faith is the substance of things hoped for, the evidence of things unseen")

It is the great essential in any enterprise.

It is particularly so in the live stock feeding game.

But when it is fully justified by conditions, there is then every natural reason for its exercise.

Consider the big decrease in out-going shipments of feeders the past four months from the various markets.

Consider also the depleted western cattle country.

Is the handwriting not on the wall?

What does it mean but decreasing market supplies?

Consider the increase in population.

Does it not all argue for a high cattle market this summer, fall and winter?

Is it not therefore wise to hold on to the good, thrifty, young stuff and to invest in them?

We firmly believe it to be so.

Place your orders for grazing or feeding stocks with us.

Our buying service is complete and costs but little.

CLAY, ROBINSON & Co.

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SOUTH ST. PAUL

EAST BUFFALO

SOUTH ST. JOSEPH

SIOUX CITY

EL PASO



Woman and the Home

By HARRIET L. HARLOW



HOME DRESS MAKING

JUNE, the month of brides and roses, commencements, mid-summer garden parties and vacations.

Fashion has chosen the perfect days of sunshine and flowers as the background for her June offerings, the organdies and voiles.

The line for outdoor dresses is straight, but not tight. The first thing we notice is the waistline, which is in the normal place when not lower. The bodice, which we consider next, frequently extends to the hips, the waistline being marked by a narrow, movable belt.

The sleeves are short, medium and full length. The short sleeves are very plain, the three-quarter sleeves usually wide at the elbow and trimmed with a cuff, while the full length sleeves are long and straight.

The skirts are fuller, some being plaited, gathered, or kilted. Others have a narrow underfoundation with a full or plaited overdrape, or tunic.

Organdy, the summer rage, is being used both for dress and trimming, and comes in all white or the rainbow shades. Watermelon pink and apricot are two new shades.

In voile material both the light and dark shades are to be found, showing figured designs in flowers, checks, silk stripes, dots and Georgette effects which defy exact description, but are most effective.

Dotted Swiss also has come back into its own, and for a nice white dress which does not hold wrinkles and launders easily, dotted Swiss comes first.

It takes the material to make the dress, but the style of the dress makes the most of the material. The designs I have given this month are light and summery, well suited to the season. These summer dresses are easy to make at home for women who can sew and follow a picture. The home-sewer will succeed with a thin summer dress where it would be impossible to obtain the more tailored effects unless more experienced.

Many of the dresses are made over a fine net lining to which is attached the sleeves and lower flounces. Little collar and cuff sets of ecru lace and net form the only trimming for many of



Fig. 1



Fig. 2



Fig. 3



Fig. 4

the voile dresses. Hip extensions are still very good, either plaited, gathered, or ruffled.

In the organdy the lace and ruffles form the most effective trimming.

Figure 1 is a simple one-piece dress with the long waist effect, kimono sleeves and a straight gathered skirt. A double ruffle of same material forms the only trimming. The waistline is marked by a narrow band of velvet with a finishing touch of rose buds. Four and one-half yards of material, one yard wide, are required for a bust of 36. This is a pretty dress made up in any shade of organdy.

Figure 2 is prettily made by combining a figured voile or summer silk with the plain material. Here the plaited ruffles for sleeves and plaited under-founce are put on a net foundation. The over-blouse and skirt are very plain, the waist having a round neck and large, plain over-shoulder forming the new drop shoulder effect.

while the tunic skirt is in two sections gathered onto the waistline.

A girle with bow ends made from pretty satin ribbons forms the only trimming.

Three yards of voile or silk, one yard wide, with one and one-half yards of plain material one yard wide, will make this dress. Three and one-half yards of wide satin ribbon are required for a full length bow and ends.

Figure 3 is a little sport suit to be developed in either cotton, wool or silk, and is suitable for the colder days on our vacation or trips. It may be made of checked gingham, trimmed with white pique vest and collar. In wool the black and white check is a very smart and serviceable material. In the silks the foulards or heavy satins may be used.

Four and one-half to five yards will give you one of these suits, with one yard of contrasting material for collar and vest.

The small eton or bolero jacket with the heavy satin kilted skirt is also very good for cool days.

In Figure 3 the eton is heavily braided on the collar, cuffs and around the edge of the coat. It has a vest effect of black velvet. The drop shoulder is used with a three-quarter bell sleeve attached. The kilted skirt requires about three yards of material one yard wide, and the eton jacket one and one-half yard of material one yard wide.

LITTLE HELPS FOR HOME SEWERS

When doing bead work with fine beads dip the needle frequently in water. The beads will slip on easier and also cling together.

A belt shaped in the back is sure to keep in place. Put lining on cloth crosswise and allow a slight flare at the bottom.

When putting away summer finery wrap all white silk or cotton material in blue paper and enclose several cakes of white wax. The wax will turn yellow, but the gowns will remain white.

To correctly find the waist measure so as to be able to put an elastic on a blouse, cut material somewhat shorter than full length patterns, make waist and then try on. Tie a tape around waist, arrange fullness as desired, then take a lead pencil and mark the waist all around just below the tape. Cut off even with marked line after taking off waist. Turn a hem, stitch and run elastic. This is an excellent plan and of great benefit to home dressmakers.

Before washing blue goods soak two hours in a bucket of water in which an ounce of sugar of lead has been dissolved, and then dry before washing. This will set the color permanently.

To make dress shields for thin waists cut white flannel the size desired, cover with thin lawn, trim edge with lace and use same as rubber shields. They will keep the waist dry and they look nice.

When cutting thin material which is sleazy and pulls, lay it in between two sheets of thin paper and cut out paper and all. This is a great help.

A Few Time Savers for Busy Mother

RUNNING ribbon through undergarments is often a tiresome bit of work. If a piece of string is tied to one end of the ribbon before it is withdrawn when the garment is to be washed, the string will take the place of the ribbon. Then, when the garment is ironed, the ribbon may be tied to one end of the string and quickly drawn into place by pulling the string out.

How many mothers ever thought that embroidered pillow slips that have commenced to wear in the center would make pretty petticoats for the little girl? Two pretty skirts to wear with nice dresses may be made from one pair of pillow slips with embroidered scalloped edges.

Wrinkles in silk skirts, waists or underwear, mused by packing in a traveling bag or storing away, may be quickly removed without ironing by shaking out and hanging over a hot radiator or register for a few minutes.

Children's dresses always need mending or patching. That the pieces used may be of the same shade as the dress when needed, a good plan is to sew a small piece of the goods on the wrong side where it will not be no-

ticed or be in the way. In washing the piece will fade like the dress and be ready to use for a patch when needed.

Time and temper may be saved in putting on a child's rubbers by using a shoe horn.

How many of us dislike pulling out the basting threads in a garment. If the knot is made one inch from the end of the thread instead of at the end, basting pulling will be a pleasure. Always lay the threads on a newspaper and the carpet sweeper will not become clogged with them.

Mantel Scarfs

A VERY attractive mantel cover can be made from a piece of leather cloth or leather substitute of the proper length and width.

The goods can be obtained in many different colors and leather grains. A fringed edge may be cut in if desired.

The material can be washed without injury, in which respect it is superior to most of the fringed mantel covers or scarfs commonly seen in so many homes.

Don't Throw Away Window Shades

ANY house furnishing stores will tell you that Holland shades are off the market. That is not quite true, but it is a fact that linen shades are scarce; many stores have no stocks of them at all, and when obtainable they are very high in price.

This causes a housewife to hesitate about throwing away old shades that have become wrinkled, faded and thin, with the idea of replacing with new curtains. Generally the trouble with the old shades is that the filler has dropped out of the linen.

Window shades that have deteriorated in this way can be made to look almost as good as new at small cost and with little trouble. Go to a paint store and buy a can of ordinary flat wall paint. Reduce it by adding 25 per cent of turpentine.

Remove the curtains from the rollers; tack them down smoothly on a bare floor or table and apply one coat of the paint. To eliminate brush marks go over it immediately with a dry stiff bristled brush.

If it is desired to have the shades harmonize with the decoration or trim of the room, any color of flat paint may be obtained with which to ac-

complish it. It is possible to have the outside of the shade one color and the interior side different if it is preferred to have it that way.

By the adoption of this suggestion window shades can be kept looking bright and clean at the same time saving the expense of new ones.

Activities of Women

IT IS claimed that 90 per cent of the women in this country buy ready-made clothes.

In Denmark a housemaid is paid about 50 kroner a month in addition to her board and lodging, while a cook receives at least 80 kroner. In normal times these wages are said to be equivalent in Denmark to the same number of American dollars in the United States.

Massachusetts has the greatest preponderance of women voters with 58,264 more women than men. North Carolina is next with a women's majority of 15,288, and South Carolina, with 10,307, is third. In Rhode Island women of voting age outnumber men by 3,196 and in Maryland by 1,202.



FIRST
SUMMER

OUR BABY—His Feeding, and How to
Keep Him Well in Warm Weather

THIS question arises every day: How often should baby be fed? As a general rule breast fed or bottle fed babies are fed every two hours. Once in a while you will find a baby that can get along very nicely on a three hour schedule—in hospitals and nurseries a four hour schedule has been tried—but it has been learned that many babies get along much better on the two hour schedule.

I am going to give a schedule of feeding for babies under one year old. It has been tried and proven to be correct. This schedule will not overfeed healthy babies, and it gives them and everybody else rest at night. But it must not be blindly followed. It is intended as a safe, general guide, and may be varied to suit special cases. It is not intended for sick babies. Your family physician should be consulted when baby does not respond properly to normal feeding and care. For example, a seven months old baby's stomach may have given out and it may require the diet of a two months old baby.

My table deals with time and quantity, only, but does not tell how to prepare the quantity. The amount of regular liquid diet for a healthy baby in its second year is eight ounces. The baby should be fed every four hours from 6 a. m. till 10 p. m., but not during the night. Fruit, cake, sugar, candy and bananas should not be given a baby under one year and a half old. All the sugar it requires will be given in the milk. Babies with irregular bowels may be given sweet orange or prune juice. A mother need not have fear concerning the second summer for her baby, for it will get along better than during the first summer if the diet is well selected and properly given.

What is the best food for an infant? That question is best answered by the physician attending the baby. Food that agrees with one baby may not agree with another. There is as much difference in the physical condition of infants as in adults, and the diet of a sick baby needs special adaptation to the case.

If your baby does not thrive on well



Second Summer

selected food it may not be the fault of the food, but your own fault. Perhaps you do not prepare the food properly, or you under-feed or over-feed. First, correct any possible error in giving the food, and then if it disagrees with the stomach substitute another food.

The medical profession today is partial to cow's milk when the breast fails. Cow's milk should be pasteurized in the summer and when there are any doubts as to its freshness and purity.

How long should the baby be kept on liquid foods? A baby should not be fed solid food until after its first year. During the second year great care should be exercised in changing from infant to adult food, for it is the error in diet that has given rise to the false notion that the second summer is more precarious than the first.

The change to the solid foods must be made gradually, even if the baby has teeth, and regular feeding must be strictly observed and with great care. The baby must not be fed too fast. Teach him to take time and not bolt his food down. Eating too fast often causes a great deal of trouble in children, and though well fed they are thin and under weight simply from eating too fast.

The liquid food that has brought the baby through to the end of the first year in good condition should be continued through the second summer as the main diet along with bread and butter, wheat in cereal form, crackers, baked potatoes, bread and milk. The change of foods should not necessarily begin at the end of the first year. Baby's condition is the best guide. When feeding with solid foods is begun the foods mentioned should not take the place of the regular diet, but be given as supplemental thereto and in small quantities with the milk. Then, should the baby be taken sick the solid food may be discontinued and the milk diet will continue to serve its purpose.

In order to get the baby on this regular schedule plenty of time must be taken at feeding time to be sure that it has had enough. If the mother hurries the feeding to attend to some household duties within an hour's time the baby will be crying again. The tendency then is to feed it again. This practice throws it off schedule, disturbs the digestive organs, and later causes stomach trouble.

In regard to the feeding at night and breaking away from night feeding, the only safe way to accomplish it is for the baby to sleep alone from the day of its birth. Feed well at the last night feeding and lay the baby down in its own bed.

There are many "don'ts" that might well be observed in rearing the baby, but here are a few that are worth while bearing in mind:

Don't frolic with the baby immediately after nursing. Keep it quiet for a time.

Don't keep bands and clothing too tight about the infant's stomach and

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WE want Cloverland grazers and farmers to look at this store in that way. We are here to serve you carefully, courteously and whole-heartedly.



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You can purchase by mail just as satisfactorily as if you were in Lauerman's Store in Marinette, doing your buying personally. Your goods are shipped same day order is received.

YOU CAN SAVE TIME, FREIGHT
AND MONEY BY SENDING IN
YOUR MAIL ORDERS TO US.

It will be of great benefit to you to have your name on our mail-order list and receive price lists and quotations on whatever you need.

bowels. The abdomen must be free to expand in breathing.

Don't toss your baby. How would you like to be tossed and juggled about? Babies are the most abused, misused and misunderstood element in a community.

Don't forget to put sweet oil or vaseline on the baby's head if it has a dry crust or scales.

Don't leave a wet or soiled diaper on the baby. Change as often as it is soiled. Then bathe, dry and powder before putting on the clean diaper. The baby cared for in this manner will never chafe or the skin become inflamed.

Don't fail to notice the breath and tongue. In good health the tongue is clear and the breath pure and sweet. If the tongue is coated and the breath

unsavory the bowels and stomach are out of order and you are probably feeding it too much.

Don't fail to teach the baby to use the commode. It will learn at five or six months. Place the baby on the commode in the morning immediately before or after breakfast and he will form a regular habit. One good bow movement a day is all that is necessary for a healthy baby.

Never leave the knitted wool or silk bands off a child's abdomen until after its fourth or fifth year. From experience it has been learned that child wearing these bands for a short time in the summer prevents all stomach trouble. The bands may be bought large enough for a child up to 6 years old.

Schedule planned to help mother as a general guide:

Age of Baby	Quantity for 1 feeding	Frequency of Feeding	Total No. Feedings in 24 Hrs.	Total Quantity Fed in 24 Hrs.
1st 2 wks feed	1 ounce	Every 2 hrs. from 6 a. m. to 10 p. m. and once at night.	10	10 ounces
2nd 2 wks feed	1½ ounces	As above	10	15 ounces
3rd month feed	2½ ounces	As above	10	25 ounces
4th month feed	3 ounces	As above and begin to postpone night feeding.	10	30 ounces
5th month feed	3 ounces	Every 3 hrs. from 6 or 7 a. m. to 9 or 10 p. m. Do not feed at night.	10 or 9	27 or 30 ounces
6th month feed	4½ or 5 ounces	As above	6	27 or 30 ounces
7th month feed	6 ounces	As above	6	36 ounces
8th month feed	6 ounces	As above	6	36 ounces
9th month feed	7 ounces	As above	6	42 ounces
10th month and after	7½ or 8 ounces	As above	6	45 to 48 ounces

Good Bread and How to Make It

GOOD BREAD is a blessing in every home. In making good bread many things have to be considered—the best materials, the right utensils, cleanliness, care and thought as to proportions of ingredients, measuring, mixing and moulding. The necessary materials are flour, water or milk, salt, sugar, yeast and shortening.

The flour should always be kept in a dry place. It makes better bread if warmed a little before mixing. A good flour should be fine and when rubbed with the hands should have a slightly granular feeling. When pressed into the palm it should fall apart, not showing the imprint of the fingers as it would if tightly packed.

The yeast should be fresh. Compressed yeast is the most convenient and in this form the yeast plants are active and ready to begin their work. Lukewarm water should always be used with yeast, as hot or cold water kills the plant.

When the yeast plant grows it causes fermentation, which changes some of the starch into sugar, and then some of the sugar into alcohol and carbon dioxide, or carbonic acid gas. The carbon dioxide gas raises the dough. If it rises too long it will make the bread sour. Dough is made light in five ways.

- By use of yeast.
- By use of baking powder.
- By use of soda and molasses.
- By use of soda and sour milk.
- By beating air into the mixture.

A bread mixer is an excellent acquisition to the household equipment and helps to make the work much easier. I have never made bread in any other way, and I value my bread mixer as I do my oven for baking the bread.

By all means keep the dough at an even temperature until it is ready to mould for the pans.

Bread

2 Cups scalded milk and 2 cups boiling water.

- 1 Tablespoon salt.
- 1 Tablespoon sugar.

1 Tablespoon butter or lard.

1 Cake compressed yeast, or three cents' worth in bulk, dissolved in or half cup luke-warm, sweetened water.

14 Cups sifted flour.

Put salt, sugar and butter in mixer pour in the milk and water. When luke-warm add the dissolved yeast and gradually add the flour, stirring all the time with the mixer. Mix until the dough is soft and elastic, or from five to eight minutes with the mixer. Move the mixer, moisten the top cover, and let it rise in a warm place undisturbed its bulk; then cut down, toss a floured board (using very little flour) mould into loaves and place in greased pans to rise. Cover the bread with a towel and again allow the dough to double in bulk. Bake one hour in a hot oven. The heat of the oven should increase slightly during the first 20 minutes, and decrease during the last 20 minutes. A small piece of white paper laid on a tin plate will give you the right temperature.

The pans should be so placed that the air will circulate freely around them, otherwise the bread will rise unevenly.

The best way to care for the bread after it is baked is to place it undisturbed on a bread rack. Grease the bread with butter and allow the wind to blow on it a few minutes. This softens the crust. Do not wrap it while warm with cloths to soften the crust, for so doing the flavor is likely to be lost. I find by moistening the tops of the loaves with a little cold water when I put them into the oven will keep them soft.

(Continued on page 28)

Seeds Must Be Planted Before You Can Reap a Harvest

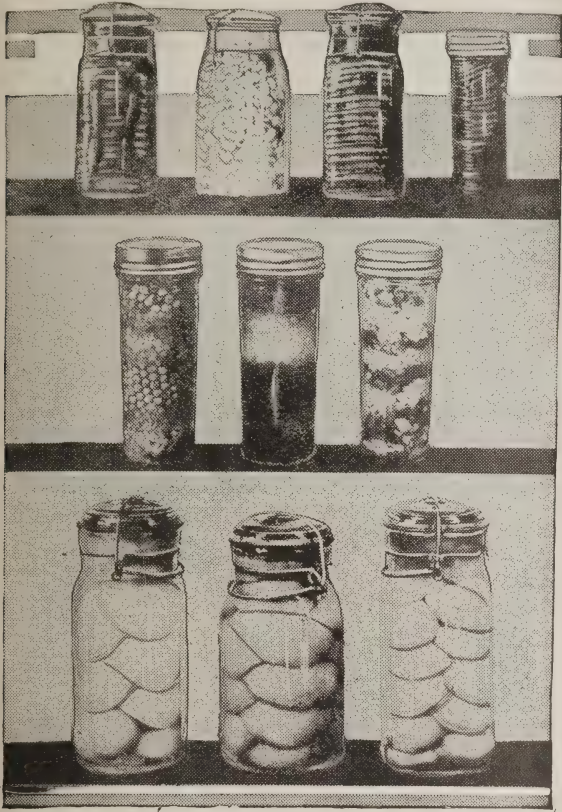
There are no CROP FAILURES in the field of SERVICE. Prepare yourself to serve in the business world. We teach all business subjects thoroughly. Attend our Academy and learn these subjects. Write us for catalog and full information.

WISCONSIN COMMERCIAL ACADEMY

711 Grand Ave. A. E. Rowland, Principal. Tel. Grand 5015
MILWAUKEE, WISCONSIN

PRESENT AND FUTURE HOME OF GREGG SHORTHAND

CANNING FRUITS



An Ideal Display of Canning Presented by the U. S. Department of Agriculture. This Type of Jar is Recommended, but the More Common Jars are Equally Satisfactory When the Fruit is Properly Prepared and Sealed. Most Any Kind of Glass Container with a Lid will do for Jellies and Jams.

CAN each fruit in season when it is best and cheapest. Select the under-ripe rather than the over-ripe. To insure success in preserving observe carefully the following rules:

Preparing the Jars

For a small family use pint jars. Buy jars with tight-fitting covers, glass tops, preferably, and fit them each year with new rubber rings. Old rubbers become porous and let in the

air. Fit each jar with a ring and cover, pour water into them and invert them to see if they are air-tight. If not, do not use them. Sterilize jars and covers by placing them in a deep pan of cold water, let the water slowly come to a boil and then boil for 15 minutes.

Putting Fruit in the Jars

1. Take jar from boiling water and set it in a wet cloth.

For your breakfast Grape-Nuts

A ready-to-eat food that costs but little and is full of the sound nourishment of wheat and malted barley.

**Appetizing
Economical
At Grocers Everywhere!**

Grape-Nuts

Made of Wheat and Barley
Prepared by
Postum Cereal Company,
Rumford, Me., U.S.A.

A FOOD

Containing no sugar, no salt, no artificial flavors, and no preservatives. It is a natural food, and is as good as the food of the future. It is a food that costs but little and is full of the sound nourishment of wheat and malted barley. It is a food that is as good as the food of the future. It is a food that costs but little and is full of the sound nourishment of wheat and malted barley.

"Customer Insurance"

That's what the grocer calls Royal Baking Powder.

"When a woman," he said, "spoils good food materials with poor baking powder she is very apt to blame the food materials—and the grocer."

"Royal Baking Powder protects against baking loss all the butter, sugar, flour, eggs, milk and flavors I sell."

ROYAL Baking Powder

Absolutely Pure

Contains No Alum --

Leaves No Bitter Taste



Truly a Quality Coffee

It is the result of twenty-two years of careful and intelligent blending by coffee experts.



INSIST ON THE GENUINE

ROASTED and PACKED BY

JOANNES BROS. COMPANY

GREEN BAY, WISCONSIN

Try Postum Instead of Coffee

at the family table for a week
or two and see if everyone
doesn't relish the change.

Postum Cereal

a drink of delicious flavor
—should be boiled fully
fifteen minutes to bring
out its full-bodied richness.

Better health and comfort
usually follow a change
from coffee to Postum.

"There's a Reason"

Made by POSTUM CEREAL CO., Inc., Battle Creek, Mich.

"M-P"
MADE BETTER

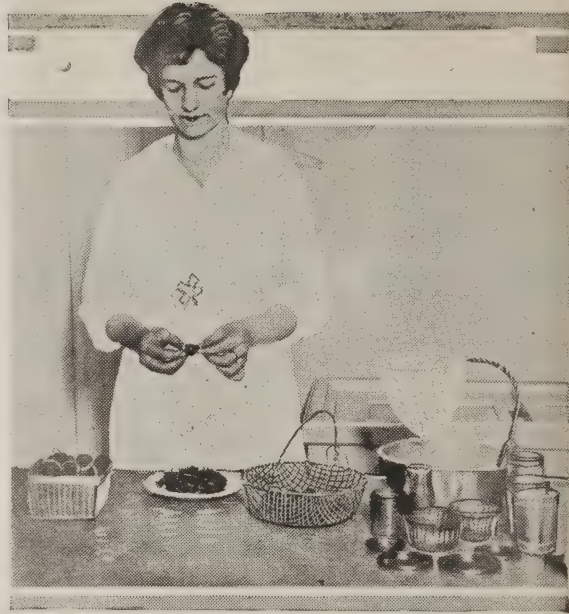
TRUE BLUE
LAUNDRY

The Concentrated Sprinkler top Bluing

Manufactured by

DAY - BERGWALL COMPANY
MILWAUKEE, WISCONSIN

MEMBER MILWAUKEE ASSOCIATION OF COMMERCE



A Few Simple and Inexpensive Devices are Time Savers During the Canning Season, and Add to the Pleasure and Satisfaction in Preparing Food for Storage.

2. Put sterilized spoon and fruit funnel in jar.
3. Pour in the boiling fruit.
4. Dip rubbers in boiling water and put on jar quickly.
5. Fill jar to overflowing.
6. Put on sterilized cover and screw tight.
7. Turn upside down.

Nearly every farm wife has pieplant in the garden which is very good in the spring while it is fresh, and it is just as good in the winter when properly canned. The process is very easy. Pick the pieplant when its young and tender, cut it up and pack it in glass fruit jars, press it down, fill the jar with cold water, seal and put away. In cooking pieplant I find if a pinch of soda is added not so much sugar will be required for sweetening.

Green gooseberries may be canned in the same manner as pieplant.

Strawberries require considerable attention and careful preparations for canning. After washing and removing the hulls fill the sterilized jars to the top with berries. Make a syrup in the proportion of two cups of water to six cups of sugar. While the syrup is boiling hot pour it slowly over the berries until the jar is full, then close tightly, using new rubbers. Place the jars in a kettle of boiling hot water on a table or back of stove and let stand until the next morning. Then tighten the covers once more.

Raspberries and blueberries may be canned in the same way.

Fruit should be canned early in the season, when it is just coming out good, and is fresh and firm.

Good Bread and How to Make It

(Continued from page 26)

them from browning too quickly should the oven be a little too hot.

This recipe makes five large loaves of bread. Some flours differ in texture, so the amount of flour given may be varied to bring the dough to the proper consistency, but from 12 to 14 cups are always needed for each quart of liquid.

Bread should be kept in a clean tin box and not exposed to moisture.

Soft Graham Bread

- 3 Cups graham flour.
- 1 Cup white flour.

- 1 Teaspoonful salt.

$\frac{1}{2}$ Cup molasses, or $\frac{1}{4}$ cup sugar.

- 2 Tablespoons butter.

$\frac{1}{4}$ Yeast cake.

- $1\frac{1}{2}$ Cup warm water.

Dissolve the yeast with a little of the luke-warm water, mix the other ingredients in the order given, and add sufficient luke-warm water to make a soft dough. Cover bowl and set it warm place. When the dough is light beat it and pour into the greased bread pans, filling them half full. When light bake in a moderate oven.

Homemade Cake

is never so delicious as when it contains the rich, true fruit flavors of

Van Duzer's
Certified
Flavoring
Extracts



These extracts are the concentrated goodness of fresh fruits. None of the flavor is lost in baking.

Van Duzer Extract Co. New York, N. Y.
Springfield, Mass.

Ziegler's
Chocolates

Package Goods of
Paramount Quality
and
Artistic Design

Northern State Normal College

MARQUETTE, MICH.

New Buildings

Excellent Equipment

Splendid Faculty

College Courses leading to A. B. degree—Normal School Courses for teachers of all classes—Special Courses in Art, Music, Manual Training, Home Economics, Kindergarten and Commercial.

The school has had more calls for teachers than it can supply
Write for information and bulletin

DORIS I. BOWRON, Secretary

JAMES H. KAYE, President

Land Opportunities for 1920



NEVER in the history of this country has there been such an awakening to the possibilities of land ownership as today. The entire agricultural sections of America have realized an advance in the price of their lands. As is usually the case, the developed country advances in price first, but as sure as this advance comes, as it certainly has in the entire Northwest, the reaction is felt in unimproved lands the following year. We wish to bring this home forcibly to the man who is considering the purchase of cheap land for grazing purposes. To those who came into our country during 1919, the best we can say is they were fortunate, and during 1920 new grazers and cattlemen will still be able to find ideal land for their purposes at attractive prices. Any further delay on the part of such buyers will be costly indeed.

It is common knowledge among all those familiar with land values that in very many instances throughout the Northwest the improved lands have advanced during 1919, **ONE HUNDRED PER CENT**, and in 1921 it is safe to say there will be an advance of at least One Hundred Per Cent in cut-over lands over prices prevailing during 1919.

THE NORTHERN MICHIGAN LAND COMPANY wishes to announce through the Cloverland Magazine that our prices for 1920 have not changed materially over 1919 and we are ready to take care of the buyer of large or small tracts along the same lines as advertised in this medium during 1919.

We have had hundreds of inquiries from the mid-west during the past year, some who have already made their purchases and others who contemplate so doing in 1920. We wish to call your attention again to the necessity of **ACTION** if you wish to secure a dependable range in a proven country and at a price that you can afford to pay. Our new literature on individual tracts, financial assistance and general information is out and a letter stating your needs will bring it. **WRITE TODAY.**

NORTHERN MICHIGAN LAND COMPANY

MANISTIQUE, MICHIGAN

309 Caswell Block, MILWAUKEE, WISCONSIN



250,000 Acres

unimproved Cut-over Lands

For Sale

in Tracts to suit
the purchasers.

Located in four-
teen counties in
Cloverland — the
Upper Peninsula
of Michigan.

Prices:

\$5 to \$15 per Acre

Terms are reasonable

Write me for definite quotations, maps, etc.

J. M. LONGYEAR
MARQUETTE, MICHIGAN

Ira Carley Finds "Silver Lining"

(Continued from page 6)

bart-Rodmany reports that fifty dressed 49.4.

All these lambs were marketed right off the grass, and dressed out better than most grain fed lambs from any part of the country. The average dressing per centage of lambs is about 45 per cent, and last year the percentage for the entire country was all the way from 41 to 45 per cent.

When I started out to visit Ira Carley the other day I did not have all this information. I knew something of Carley and his partner, Edwin Keene, in a general way. I knew Carley had been a "kicker" shortly after he came to Cloverland, that the Bureau had given him special attention during the summer, and that after all his harrowing experiences, he is now a changed man—one of the very best boosters for Cloverland. I had never met him personally, and I was indeed anxious to learn first hand what sort of man he is and what had happened that worked so marvelous a change in his attitude toward Cloverland.

The speedometer showed exactly fifty-three miles when I looked up at a signboard reading "Limestone, Alger County, Carley ranch to left." I threaded my way along a wagon trail lined on either side by tall cedars for a mile

or so, when I came upon a vast open area. A tiny wreath of smoke just over a small raise marked my destination. As I drove into the yard I found myself in the midst of a scene of intense activity. Twelve or fifteen men were busy constructing a large log bungalow, and as I watched the notched logs fitted end to end the building actually grew before my eyes. A kiddie was briskly dragging a home made cart through the sand at a lively rate, several stray hens were industriously scratching their living out of the soil, and a woman was pumping water from a well near the rear of the spacious new dwelling. The open door to a temporary frame garage revealed two new automobiles, and a pair of soiled overalls protruded from under the hood of each car. A hammering and banging indicated much business there also.

"Where's the boss?" I asked of one of the carpenters.

He jerked his thumb over toward the garage.

"Mr. Carley?" I ventured rather timidly, not knowing just what symptoms the car had been showing, or why the "get out and get under."

There was a pause in the hammering, and a wriggling of the overalls to

convenient!



For Ditching

Inserting in holes in the ground a number of cartridges primed with electric blasting caps, connecting the cap wires with a blasting machine, thrusting down its handlebar and releasing the sudden strength of twice ten thousand men—that's ditching the modern way with



Red Cross Dynamite

Seventy-five million acres of swamp land in the United States lie waiting to be drained, and on nearly every farm there are stumps and boulders to be removed, trees to be planted. Put this Giant Farm Hand to work for you. If your project warrants, we will send a demonstrator to show you the safe, easy, inexpensive way of doing your work—the Red Cross way.

See your Dealer. In any case, find out what Red Cross can do for you—and how. Write for "Handbook of Explosives" today.

E. I. du Pont de Nemours & Company, Inc.
Sales Dept.: Explosives Division
Wilmington, Delaware

Cloverland:

400,000 Acres of Land Under Cultivation.

14,000 Farmers, and room for thousands More.

8,000,000 Acres Available for Farming or Grazing.

Soils Particularly Adapted to All Root and Grain Crops.

Average Growing Season of 149 Days.

Average Rainfall is 29.1 Inches.

Home Market Consumes All Region Can Produce, Except Hay, Celery, Peas and Potatoes.

2,000,000 Acres of Heavy Clay Land Where Hay Will Grow Year After Year, Two Tons to the Acre.

Schools and Churches Abundant.

800 Miles Touring-Marketing Highways.

OWN A FARM in CLOVERLAND

The Upper Peninsula of Michigan

WHY battle with money-mad title holders when you can pick an improved farm in the most productive region in the country—CLOVERLAND?

Not long ago this Cloverland country was hit by the general exodus of farm labor to the factories. As a result over 200 excellent properties were left idle. But, one by one, they're coming back to the hoe and spade. The "Gay White Way" and the "Fabulous Fortune" has lost its lustre, and Upper Michigan is experiencing the greatest back-to-the-land movement in its history.



IF YOU WANT to get in on some remarkable propositions in partially developed farms DO IT NOW, before the best of these properties are picked off. The demand is steadily increasing, and there is every indication that CLOVERLAND will have more acres under the plow this season than ever before. Get your bid in early, and you will be surprised at what a good proposition a little money can bring you.

Cloverland: Within thirty-six hour "haul" from four great markets—St. Paul, Chicago, Detroit and East Buffalo.

Cloverland: 2,500 Miles of railroad. Transportation possible by railroad, highway or water-way. In the Heart of the Great Lakes Region.

Cloverland: One of the SIX National Touring Objectives. Over 12,000 automobile visitors during season of 1919.

Ranches Ranges Farms

Any acreage you want,
Any easy terms you want,
Any way you want to buy,
Any kind of land you want,

**RIGHT NOW
WRITE NOW**

The County Board of Supervisors of Iron County, Wisconsin, wants practical stockmen to take up large ranches in their county, and will aid them in locating and financing.

The County Board of Supervisors of Iron County, Wisconsin, wants experienced farmers to take up small or large acreages of the best hardwood land in the cut-over country, and develop them into paying live stock farms. The Board will help them find a good location close to local markets, on good roads and with railroad facilities.

**Ranches \$10 An Acre,
Farm Lands, \$10 to \$20 An Acre,
Ranges Free for Season.**

Any ranch in Iron County is within 200 miles of South St. Paul, and 400 miles of Chicago. Two railroads go direct to either market.

Any farm in Iron County has a local market within a few miles that will absorb all farm products at the highest market prices, because these markets are in mining or lumbering districts without developed farms to provide sufficient food supply.

This district is old in mining and lumbering, but NEW IN AGRICULTURE, and the County Board of Supervisors wants you to help them do the big job of converting the thousands of idle acres of cut-over land and pasture into productive fields, and in turn will help you get along.

If you want a good chance to make good, write to

DANIEL REID

Chairman County Board of Supervisors,
HURLEY, WISCONSIN

(Continued from page 30)

the left. Presently a form emerged and stood upright.

"Good morning, stranger," he said cheerily, extending his hand and taking mine in a vice-like grip.

"What's the trouble?" I asked, by way of introduction.

"Well, you see, we have to do our own repairing out here, and we try to keep the cars tuned up ready for service at any time."

I noted the man carefully and I never saw a happier, more care-free individual in my life. He walked over to a chopping block and sat down with the air of a man well satisfied with life in general. I told him I had come out to learn how and why he had been "converted" to Cloverland.

He glanced at me rather sharply and then broke out into a loud laugh.

"Converted, you call it," he said. "Well, I guess you're right."

He laughed aloud again and then chuckled to himself, as he looked over toward the pretty bungalow that was now several logs higher and assuming shape, and then out across the great range where green grass and clover was just beginning to peep from the ground, and then toward a field of 100 acres that was being plowed and made ready for seeding to provide winter feed.

"Sure I'll tell you all about it," he smilingly assented when I asked how all the change came about. "I'm a sheep man by choice, trade and occupation. I started in the business about eighteen years ago out West, and hung on out there until the range became so overcrowded and dry that I decided I would either have to go to selling shoe laces or change my place of business."

"It was in the early spring of 1919 that I decided to come to your country—this Upper Peninsula of Michigan. I had heard considerable about Cloverland, what had been said about clover growing wild among the stumps, and also reports that were not so glowing. However, I made up my mind that it

couldn't be much worse than Wyoming, so I came on.

"One of your land men grabbed me and set me down right here where we are now, only there wasn't quite so much to it. Everything looked pretty blue but I had made the move and was determined to stick it out.

"Well, sir, it seemed that every disadvantage a country could have came my way that first summer. There was a long dry spell—everybody said it had never been so dry before in this part of the country—and it seemed as if there would never be any rain. To me it seemed like the same old drought had fought for years was coming on, and I was about the most discouraged man in the whole country. I dug a well and had so many cave-ins that I became almost distracted trying to fish water out of that hole. However, the grass seemed to be holding and just when I commenced to muster up courage again, somebody's engine dropped a spark and for the next two weeks I neglected my stock, my family and myself to fight the fire. We fought day and night, my partner and I, until we were almost exhausted. Those were the most discouraging days of all. I guess I cursed every country, everybody, everything, and myself, too. And just when our spirits had hit the bottom along came that two days' down-pour of rain. I sat at that window in that old house there and almost cried for joy. And after the rain sunshine again.

"Every fire was out and I never saw such a transformation scene in my life. The withering yellow grass had changed to fresh green and there seemed to be acres and acres more of it.

"I went out to look at the sheep. I had 2,600 head, and they were as tickled as I was. They all had their heads down tearing away at that grass like it was their first meal in months.

"That was the end of the fix. The sheep commenced to pick up, and I could see the fat put on over night

Assembled Acreages in WISCONSIN

Are Now Ready for the Western Grazer or
the Corn Belt Live Stock Farmer

RANCHES OF ANY SIZE

360,000 acres of the best grassed and clover-covered cut-over lands, all watered by streams and lakes, have been assembled in Northern Wisconsin, and will be apportioned out in solid blocks to suit the stockman.

Get your location before the Spring rush is on

Write to the

Milwaukee Association of Commerce

Athletic Club Building, MILWAUKEE, WISCONSIN



Northern Minnesota Is Your Opportunity

If you have energy without capital you can succeed. What others have done you can do.
If you have energy and capital to add you can succeed more quickly upon the capital invested in Northern Minnesota than anywhere else.

Dairying and Clover

Natural advantages make the Lake Superior district the coming dairy section of the world. The dairy business has made remarkable growth in Northern Minnesota during the last ten years.

Greater Cloverland is an appropriate title. Clover creeps everywhere, it is a weed of wonderful value.

Grasses grow luxuriantly. The grazing season is weeks longer than anywhere else, longer than further north, longer than further south, the lake does it.

The 1918 Grand Champion Guernsey cow of ten shows, including the Waterloo Dairy Cattle Congress and the National Dairy Show, is a part of one of the several nationally famous dairy herds of Northern Minnesota. The picture above is that of the Island Farm, the home of the nationally known Guernsey herd, including Imp. Bella II du Grand Port, the 1918 champion Guernsey, owned by G. G. Hartley, of Duluth.

The products of the dairy always command good prices and particularly so in this section. Later the dairyman may make cheese, but at present he cannot afford to disregard the local market for milk and cream.

It is conceded that the opportunities afforded the dairyman are more certain in Northern Minnesota than any other line of agriculture, when everything is considered, soil, climate, crops and above all clover. Come and be convinced.

Potatoes and Root Crops

Potatoes are the settler's first crop. Under ordinary conditions potatoes yield 200 bushels to the acre. During the past year, exhibiting at all competitive shows in the Central West, St. Louis County took 125 prizes as against 113 prizes awarded to all competitors.

All manner of root crops grow in amazing abundance, making market gardening on small tracts close to the consuming markets of the cities a highly profitable and interesting occupation.

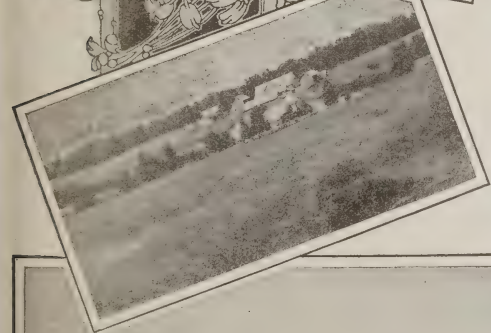
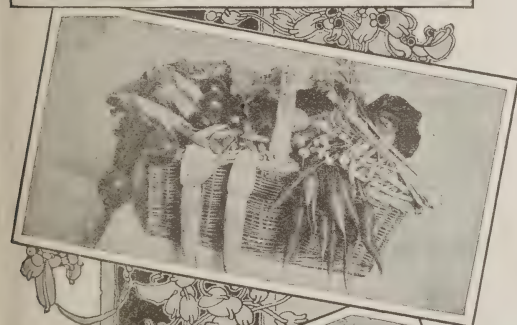
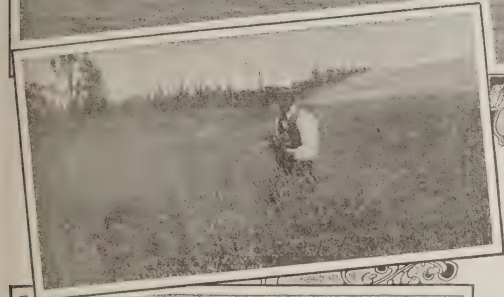
Sheep and Cattle Grazing

45,000 head of sheep in bands ranging from 1,000 to 13,000 in size were shipped onto Northern Minnesota lands last year. The great amount of natural feed, present everywhere, the large yield of clover running as high as five tons to the acre, and the ability to acquire large areas of good land at low prices is causing the Western grazer to look to these lands for the continuation of his industry.

Why You Are Interested

The country is adaptable to several classes of people, who for various reasons are desirous of making a change. First, the renter who finds the purchase of lands in older settled communities impossible and yet is anxious to secure a home of his own. He wants the rise in value of the land that has made his landlord wealthy. Second, the farm owner, who finding the high price of his land has made it practically impossible to secure more than a very meager net return on his investment, has sold his farm and now seeks a new location. Third, the immigrant who is looking for a new home. Fourth, the office man who sees nothing ahead but his salary and who is among the great multitude who want to break into business for themselves. Nowhere can this class of people accomplish more with their money. Fifth, is a great class of people who are overworked or unemployed who will find here a means of securing a living and rapidly develop into land owners. If you would like to know more about these lands, write

COMMERCIAL CLUB OF DULUTH, Duluth, Minnesota



(Continued from page 32)

Then one of my men found a clear, bubbling spring right at the edge of the ranch, and a finer spring I never saw.

"In the fall I sold off nearly everything and between you and me I cleared about \$4,000 over and above my highest estimate for the year's operation. I told you I had been in this business for over eighteen years, and in all that time that bunch of lambs last fall was the finest and best I ever dumped on the Chicago market. They averaged about twelve pounds heavier than any lambs I ever marketed from my Casper ranch.

"Yes, indeed, I've changed my mind about Cloverland. I know beyond doubt that any sheep man who has the nerve and 'sand' to surmount the difficulties he encounters here can make a clean sweep in Cloverland.

"You said you had a hard winter here last winter. Nothing to it. It was just ideal to put on wool. Look at those old ewes over there now. You never saw a finer fleece."

He paused in admiration, which gave me an opportunity to break in with a question that had been revolving in my mind ever since he told me about how his sheep had gained, and in what splendid condition they were marketed, so I asked:

"What is this Western dope about Cloverland's grasses and clover being 'belly-wash'?" You say you fattened your lambs on nothing but green grass and clover. Did they shrink on the way to market like some of this dope says they do?"

Carley gave one of his big, whole-souled laughs again.

"Say, man," he exclaimed, "this grass and clover will put on more weight per head than any Western range, and the way my stuff averaged up and the price I got doesn't look like they lost very much going to market, does it? And here's another advantage. I can load up one day and be on the market the next. No

unloading and feedings on the road, no long journey. And that 'belly-wash' that all depends on whether a man wants to run his sheep on it, or run them on the best range the sun ever shone on. All a sheep man has to do in this country is keep his head and use it. Browse and swamp feed don't put on hard fat. All you got to do is keep the sheep out on the open range and they will do the rest."

"Then you are really 'converted,' satisfied, and intend to stay?"

He waved his hand toward the barn, galow going up and pointed to the 100 acres of sod being turned under for seeding, and said:

"Look's like it, doesn't it? I recognize a good thing when it has been proven to me like it has here, and I'm going to stay. I got a good buy on this land and I wouldn't part with this lay-out for anything in the world."

Ira Carley had found the "silver lining" of the clouds that had hovered over him for so many years, and his face beamed in exultation as he waved farewell when I turned to take a last look at the "lay-out" as he called it, but which we term "another one of our permanent sheep ranches in Cloverland."

WOOL POOL

HUNDREDS of thousands of pounds of wool already are assembled in the state for the Michigan State Farm Bureau wool pool, the first strictly co-operative enterprise of the kind ever attempted in Michigan. The big warehouse in Lansing purchased by the farm bureau for the pool already is proving inadequate in size and additional quarters in possibly Detroit, Jackson, Kalamazoo or Grand Rapids will have to be obtained. Early estimates for the handling of 2,000,000 pounds of wool in the pool now appear ultra-conservative. All of the 150,000 pounds of wool now in the Lansing warehouse have been trucked in by farmers living even as far away as 100 miles.

These companies were the first to bring cattle to its cut-over lands, and carry on profitable and successful grazing in Cloverland.

WE offer the western grazers their choice of 75,000 acres of cut-over lands in Cloverland; 25,000 in Northern Michigan; 50,000 in Florence and Forest Counties, Wisconsin.

Several ranches were selected and taken over last year by well-known western cattle and sheep men.

Write us for particulars or come and see these lands for yourselves.

J.W. WELLS LUMBER CO.
MENOMINEE, MICH.

GIRARD LUMBER CO.

J. W. Wells, President

DUNBAR, WIS.

MENOMINEE, MICH.

**A New Farm
In a Proven
Farming District
Insures Success**

**Inquire About
Ontonagon County,
Michigan**

**Ontonagon
County,
Michigan**

is an agricultural region sparsely populated with practical, successful farmers, who have had the advantage of a splendid clay-loam soil as the basis for farming. There are thousands of acres of this same type of cut-over land in Ontonagon County awaiting the settler, or big rancher. Most of the timber was taken off years ago, a greater portion of the land is open, and there is an abundance of clover and grass ready for range purposes, pasture and wild hay. The county's chief industry is agriculture, so you will be settling among farmers in Ontonagon County.

No Real Estate Game

The County Board of Supervisors of Ontonagon County are inviting you in this advertising space to inquire about their county, and they will give you official service in helping you find the location you want. Detail information may be had by addressing a letter or post card to

WILLIAM KROHN
County Clerk, Ontonagon County,
ONTONAGON, MICHIGAN



The Transformation of Cut-over Land Into Valuable Farm Land.

Gogebic County, Michigan Offers YOU—

UNEXCELLED clover and blue grass growing and farm lands are to be had here in large or small tracts.

Several 1,500 acre, 3,000 to 8,000 acre tracts are available. 50 per cent of these lands are burnt over and 30 per cent of them are open with an abundance of pasturage for both cattle and sheep.

Transportation facilities are good. The C. & N. W. and the D. S. & S. course the entire length of Gogebic County, providing excellent unloading and loading opportunities.

Nearly all tracts lie adjacent to the Cloverland Trail and other splendid roads. Plenty of clear spring water.

Green Bay, Wis., St. Paul and Chicago, 200, 225 and 400 miles distant from Gogebic County, furnish the markets. Shipping facilities good.

These lands are rolling with little if any swamps. Small winding streams course through most of them.

Good roads intersect at frequent intervals all through the county. Our school system is the best that we can make it.

The local markets of Ironwood, Bessemer, and Wakefield and other smaller cities and villages furnish good markets for all farm products. Our clay loam soils are highly productive. The proximity to busy, bustling mining cities of 20,000, 6,000 and 3,000 is a natural asset.

The undersigned will put you in touch with land owners or their representatives, show you the county and see that proper unloading chutes, etc., that you may desire, are ready for you upon your arrival.

We believe in our lands and shall render you all the service at our command. A postal will bring you an answer to your inquiries.

*A Never-failing Range That Is Never Overcrowded
May Be Found in Gogebic County, Michigan.*

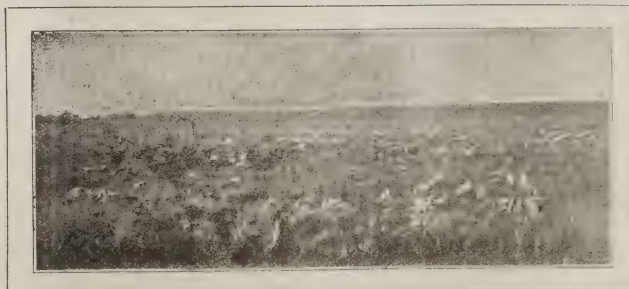
ADDRESS

C. E. GUNDERSON

County Agricultural Agent

IRONWOOD

MICHIGAN



Attractive Opportunities

To Buy Cut-over Range and Agricultural Lands

from an old, reliable lumber company at prices and on terms which are most attractive at this time, when

GREATER CLOVERLAND

is finishing a year of great success in sheep and cattle grazing on cut-over lands, and a year of unprecedented sale of and location on new farming locations in what Frank J. Hagenbarth says is "the greatest agricultural and live stock section in the United States, if not in the world."

FOR FULL INFORMATION ADDRESS

SAWYER-GOODMAN COMPANY
MARINETTE, WISCONSIN

OR

GEORGE H. HEDQUIST, Supt..
GOODMAN LUMBER CO.
GOODMAN, WISCONSIN

Helping Canning Industry

IN EFFORTS of the Michigan State Farm Bureau to assist the fruit canning plants of the state to obtain the necessary supplies for normal operations this summer, data graphically illustrating the seriousness of the prevailing shortages have been forwarded to the Interstate Commerce Commission at Washington, D. C.

It was shown that the plants, of which there are nearly 100 in Michigan, are short 690 cars of coal, or approximately 27,600 tons, 160 cars of sugar, or approximately 9,600,000 pounds, and 1,275 carloads of cans.

Every effort is being made to have these rushed to the plants, for the lack of them means the loss of hundreds of thousands of dollars this summer in

unmarketed produce of farmers, and a sky-high price on canned goods in the cities next winter because of the scarcity on the markets. Michigan is one of the largest fruit canning states in the country.

Without the cans from the east, the plants cannot operate. Without the coal, substitute fuels will permit only of the most meagre operations. Sugar cannot be done without, although such practice would mean the production of canned goods not in public favor.

This condition is unfortunate, according to the farm bureau, as an unusually large fruit crop in Michigan is promised this year and this ordinarily would redound to the benefit of the consuming public.

Permanent Range With 1,000 Head

(Continued from page 5)

included. At any rate, breeding stock will soon be an important adjunct to the ranch, as it is not the intention of the promoters to maintain merely a gigantic grazing and feed lot. It is to be a real cattle ranch, breeding and feeding, with all that goes with such a huge live stock operation.

Of course, all this will take a little

time, but the Cloverland Cattle Company has a good start with this initial herd, and within the next four or five years, this ranch is expected to stand out as a genuine demonstration of what can actually be accomplished in the way of cattle ranching in Cloverland, as well as a profitable business on a big scale.

Classification of Hides

GREEN HIDES: Just as they come from the animal. Not salted.

PART CURED: Not thoroughly cured.

GREEN SALTED: Hides that have been salted long enough to be thoroughly cured.

GREEN CALF: Calf skins weighing from eight to fifteen pounds.

GREEN KIP: Calf skins weighing from fifteen to twenty-five pounds.

RUNNERS: Long haired and thin skins, weighing from eight to twenty-five pounds.

DEACONS: Calf skins weighing under eight pounds.

DRY FLINT: Thoroughly dry hides that have not been salted.

DRY SALTED: Thoroughly dry hides that have been salted while green.

BRANDED HIDES: A deduction of 10% on all branded hides.

GREEN CURED: Weighing over sixty pounds are called heavy, and under sixty are called light hides.

DRY HIDES: Weighing twenty-five pounds or over are called heavy and under twenty-five pounds are called light hides.

Proof That Oneida County, Wis. Has Stood the Test

LAST year 25,000 western sheep were pastured in Oneida County. Some of these sheepmen carried their stuff through the winter with such favorable results that they will become permanent ranchers. Others are shipping to Oneida County again this year. The successes last year are the inducements to repeat this year and become permanent settlers.

For information concerning
ranges, address

COUNTY BOARD of SUPERVISORS
Rhineland, Oneida County, Wisconsin

What Will Minnesota Do About It?

By HENRY A. PERRY

WHILE the farmers of Minnesota have been industriously grubbing out stumps, clearing an acre or two of land to enlarge the tilled acreage of their farm-homes, plowing, harrowing, seeding and planting, working from 4:30 in the morning until after 8 o'clock in the evening, doing all they can alone to feed the hungry and minimize the food shortage that is now starving the nation in the face, speeding up production that the high cost of living may be reduced for high-priced labor working eight hours a day to turn out high-priced products for high-priced profiteers to sell to the farmers at high prices, a band of clever politicians in Minnesota has been playing a game that is creating apprehension throughout the United States, everywhere it seems, except among the people slated to be deluded and victimized—the farmers of the North Star state.

This group of politicians, who style themselves "Socialists," "I. W. W.'s," "Bolsheviks," "Communist," "Non-Partisan Leaguers," and anything else that may catch the ear of the discontent or appeal to an unsuspecting working man or farmer, has perfected a machine in Minnesota that has disseminated its sinister influence into every mill and factory, and into every farm community. Masked under the title "Non-Partisan League," the most artful organizers from the Socialist party, the I. W. W., the Communist Labor party, the Socialist Labor party, even from the skulking anarchists that hold secret meetings in hidden burrows in the big cities, have been placed upon the payroll to spread propaganda in Minnesota. Anybody will do, just so long as he can "do his bit" with any element with which he is acquainted and which might yield to subtle argument or brazen advocacy of overthrowing the government. The object of the Non-Partisan League leaders is to get votes, no matter how, and once in the saddle they will do the rest.

This sort of propaganda has been going on in Minnesota for more than two years. Little attention has been given it by busy people in city and on the farm, for the reason that its real import has been cleverly covered so as not to excite too much comment or spread alarm, and where there has been an occasional outcropping of its sinister motives the situation has been passed up as a fad, or flash in the pan, that would be of no consequence and soon die out, just as other radical movements have done in Minnesota and other states in the Union.

This lethargy and sense of security from evil consequences on the part of the public has been an ideal condition for resourceful leaders of the Non-Partisan League have taken advantage of to spread a well-manipulated propaganda that would take root in almost any community because of its apparently innocent character and its warped applicability to fit any condition or solve any grievance any particular class of people might really have or imagine.

Just how cleverly this scheme has been worked may be noted from the following lines of activity:

In the factories and mills Non-Partisan League organizers have been loud advocates of the eight-hour, the six-hour, the four-hour day, higher wages, taking over of all industry and the and and dividing it up among the faithful followers of the creed. Of course, those who would not advocate such a policy could hope to share in the dividends when the farms and factories were nationalized, and as wages and land ownership would be abolished nobody could tell what would become of them.

On the farms the Non-Partisan League organizers have told the farmers of their grievances and many more they ought to have, although few, if any, of them had ever touched a plow handle or milked a cow, of the "farm government" the league would establish, but kept mum on the nation-

alization of farms and how farm ownership would be abolished under a regime of Socialism. Identity with the Socialist party and the I. W. W. has even been denied, yet these organizers were recruited from the best organizers and cleverest writers and orators in these two organizations.

The "movement" has been given religious brands where listeners adhered to an abiding faith in God, held the tenets of their church sacred and Christianity more important than allegiance to any party. But one of the fundamental principles of Socialism

able phase of human life, every low desire and high ambition. By these methods the organizers have gathered recruits, hiding and denying the truth where it would disrupt the movement and lose votes for the league, and boldly asserting the truth of its underlying vicious motives where it would catch votes. The success of propaganda of this sort rests with the degree of secrecy employed and the cleverness with which it may be camouflaged.

But with all the art and cunning of these minds, with all the resourceful-



Hon. J. A. O. Preus, Upon Whom Representative Republicans of Minnesota Have United to Nominate for Governor.

and Bolshevism is the total abolition of Christianity and Christian doctrine from society, substituting therefor a "free state," where in the sacredness of marriage would be annulled and children would no longer know a home life with the love of father, mother, brothers and sisters—the sweet environments for which we all toil and sacrifice—all there is worth having in life.

Among the rabid elements that would abolish all moral standards, the propaganda has been open advocacy of atheism, "free love" through the nationalization of women, making women the property of the state, subject to the fancy of its male personnel, of complete overthrow of government.

So there you are. The alleged principles of the Non-Partisan League have been made to fit every conceivable

ness of these trained organizers, with all the money they have at their command (nobody but themselves knows where it comes from, but they have it) their movement has really made little headway in Minnesota so far as the actual population is concerned. The movement has become a political factor in the state only through the lack of organization on the part of the two dominant political parties—the Republicans and Democrats. They have succeeded in keeping opposing elements in these two parties at unpromising stages around election time, so that the vote has been split up and divided, giving the Non-Partisan League a lead or plurality in some instances, although a very minor factor when all votes are considered. Thus they manipulate a small minority to rule the big majority.

This system of playing the political game has gone on for some time, but it accomplished its most clever coup when it framed a state ticket from governor on down to be voted upon at the primaries, June 21, and filed it under the name of the Republican Party. There is no law in Minnesota to prevent this fraud in politics. With a big field of candidates fighting among themselves and the Non-Partisan League ticket holding a united organization, there is every reason to believe this ticket will win out at the primaries and actually head the Republican party, although controlling a small minority of the total Republican vote. There is only one way of preventing this result at the primaries, and that is through an awakening among the farmers and city dwellers as to the real issue that hovers over the state, and a united effort concentrated upon one set of candidates opposing the Non-Partisan League ticket. If this is done, the Non-Partisan League will be kicked out of the Republican party and buried under an avalanche of votes, but if the Republican votes are scattered throughout the field of candidates, the Non-Partisan League will win.

The political situation in Minnesota is the strangest and filled with the most doubtful possibilities of any state in the Union. Farmers and working men in other states are astounded at the progress and character of the campaign carried on by the Non-Partisan League, for the reason that this league of radical politicians is at variance with the substantial, safe and sane policies of the American Federation of Labor, the American Farm Bureau Federation, the National Grange, Farmers' National Council, and the National Board of Farm Organizations.

The Non-Partisan League has made attempts to fasten itself upon the rural population of Kansas, Oklahoma, Illinois and Michigan, but was balked by the Farm Bureau, Grange and other organizations that really have the interests of the farmers at heart and are endeavoring to do something constructive for them in the way of bettering market conditions, advancing favorable legislation in states and congress, improving farm methods and creating better conditions governing farm life. These genuine farmer organizations have a total membership of more than 2,000,000, they represent the best type of farmer in America, and the officers and rank and file have the respect of people in their respective communities and of the nation at large.

The American Federation of Labor has gone on record repeatedly against Bolshevism in any form, whether it be under the guise of Communism, Socialism, I. W. W., or the Non-Partisan League.

What, then, has happened in Minnesota, that is causing apprehension throughout America? It isn't the power of the Non-Partisan League at this time, because its power is inconsequential. It is the fear that through the clever manner in which politics in Minnesota have been manipulated that this handful of malcontents that would upset our government may actually gain control of the state machinery of Minnesota, and behind this bulwark intrench itself permanently, for once in control of the state it would indeed be difficult to oust or even curb many of the drastic Russian soviet policies which they would foist upon America.

The outside public seems to see through this coupe the leaders of the Non-Partisan League has engineered to nose the Republicans out of their own party, and under the banner that has so long stood for Americanism and all that it implies, march into the state capitol building at St. Paul and take possession.

Under the present well-laid and well-executed plans of the Leaguers, they have actually disfranchised the Republicans of the state if they divide their votes among all the Republican candidates in the field at the primary

(Continued on page 40)

Cloverland Bargains

RATE: Seven Cents a Word

Copy for the Cloverland Bargains column must be in the office not later than the fifteenth of month preceding publication. Address all want ads to the CLOVERLAND MAGAZINE, Cloverland Bargains Dept., Menominee, Michigan

LANDS FOR MIXED FARMING AND GRAZING—In Marquette and Alger County, Mich. Cut-over Hardwood Timber Lands, suitable for General or Special Farming, Stock Raising, etc. Excellent Water. Soil of Rich Sandy Loam. Exceptionally Liberal Terms. Also some Choice Tracts in Alger and Emmet County. Write at once for our Beautiful Illustrated Booklet, Jackson & Tindle, Inc., 503 Niagara Life Bldg., Buffalo, N. Y.

MICHIGAN SNAPS — 120 acres near Houghton. Small clearing. Good soil, no waste land. Only \$2,000; \$500 cash, \$50 acres close to Ewen. Nice little house and barn. 20 acres cleared. Only \$1,600; \$300 down. Hardy-Ryan Abstract Co., Waukegan, Wisconsin.

TWO MICHIGAN BARGAINS—80 acres. Good clearing. Near Paynesville. \$1,250; \$250 down. 80 acres near Ewen. \$1,200; \$200 cash. Both on roads. Good land. Wm. Hardy, owner, Waukegan, Wisconsin.

FOR SALE—3,500 acres in one block. Seven miles north of Oconto. A low price will be accepted for the whole tract. W. H. Grunert, Green Bay, Wis.

A FINE FARM FOR SALE—280 Acres, one mile west of Carney, Michigan, which has good schools and a creamery. 150 Acres of this land is cleared; has a good house and hay barn and small orchard plenty of running water all the year. Uncleared land is well seeded to grass; the soil is clay loam. There is not an acre of poor land in the farm. Easy Terms. Address Box 55, % Cloverland Magazine.

FOR SALE—120 Acres, good loam soil with clay sub-soil; 3 miles from town, 1/2 mile from school, on macadamized road, 75 acres under cultivation, balance pasture with spring stream; good 2-story 10-room house; barn 35x55; hay barn; tool shed; garage; chicken coop; hog house; wood shed; smoke house; 3 wells; 100-tree apple orchard. Personal property included, wagons, mower, rake, binder, disk harrow, cultivators, plows, harrows, drill, fanning mill, etc. I am offering this farm with personal property complete for \$10,550.00, \$7,000.00 cash, balance terms to suit. Write P. L. Kaiser, Menominee, Mich.

HAY—Write or wire us whenever in need of Clover or Timothy Hay, also Straw. In carload lots. Dafter Hay & Grain Co., Dafter, Michigan.

FOR SALE—400 Feeding pigs, eight weeks old, at \$3 each, delivered. Book orders now for May delivery. Ernest Dutcher, Whitefish, Wis.

AGENTS WANTED—If you are making less than \$150 a month, write us today. We have no "get rich quick" plan, but if you are wide awake, honest and willing to work with us and give us at least part of your time, we can offer you an opportunity to make from \$30 to \$50 a week. Just drop us a postal card for complete particulars free. Box 123, Cloverland Magazine.

FOR SALE—One fine \$200 lb. team, bay geldings, 6 and 7 years old; gentle, experienced farm team; includes heavy harnesses in A-1 condition; price \$450. One grade cow, half Jersey, half Guernsey, 8 years old, gentle as a lamb, milks 16 quarts when fresh, freshens in July; price \$150. One 1918 Ford touring car, excellent mechanical condition, tires new; price \$450. One western saddle pony, roan blooded, speedy, full of life, gentle; price \$150. One fine yearling buck; price \$60. Ten tons A-1 clover hay; 25 tons clover and timothy mixed; baled; at market price. Address, W. B. Wallace, Lakeview, Wis.

GET OFFICIAL INFORMATION regarding soils, climate and crops of Price County, Wisconsin, from the Representative of the College of Agriculture and the U. S. Department of Agriculture. Improved, partly improved and undeveloped land \$10 to \$100 per acre in Price County. Most rapidly developing live stock, dairy and general farm country in the clover belt of Wisconsin. Write H. J. Rahmlow, County Agricultural Agent, Phillips, Wis.

FOR SALE—250,000 acres of unimproved cut-over lands in tracts to suit purchaser. Prices \$5 to \$15 an acre, terms reasonable. Address J. M. Longyear, Marquette, Mich.

FOR SALE—We own grazing lands in the great open areas of Cloverland, where natural grass settings are found. We can offer you any size tract desirable. Write for full particulars. Baldwin Corporation, Appleton, Wis.

FOR SALE—Choice cut-over hardwood lands, especially adapted to grazing and general farming. Small or large tracts at reasonable prices, tables to suit purchaser. Northwestern Cooperative & Lumber Co., Gladstone, Mich.

FOR SALE—We have tracts of cut-over lands of all sizes for practical stockmen who want to succeed in a permanent manner. Consolidated Lumber Co., Manistique, Mich.

FOR SALE—Upper Peninsula cut-over lands suitable for grazing or general farming, in Alger, Chippewa, Gogebic, Luce, Mackinac and Schoolcraft counties. For information write, Land Department, Charcoal Iron Company of America, Marquette, Michigan.

FOR SALE—We own 15,000 acres of cut-over lands in Dickinson, Beraga, Menominee, Iron, and Gogebic counties in the Upper Peninsula of Michigan; 20,000 acres in Forest and Florence counties, Wisconsin. Any size tract on easy terms. J. W. Wells Lumber Co., Menominee, Mich.

FOR SALE—\$2,400. 160 Acres, 40 acres fall plowed, log house, log barn, well and wire fenced, four miles from railroad, one mile to school. \$300 down, balance contract \$100 per year. Timber enough on land to pay for same. Address, E. C. Vail, Alvin, Wis.

HIGH GRADE Holstein or Guernsey calves, either sex, 6 to 8 weeks old, \$30 each, delivered. Ernest Dutcher, Whitefish, Wis.

FOR SALE—\$50,000.00 property in heart of booming city. Will take \$25,000.00 cash, balance cut-over land in Wisconsin. Fred Wegener, West Bend, Wis.

FOR SALE—80 Acres in Menominee County, Cloverland; A-1 clay loam soil, 2 miles from town; on main line of C. & N. W. R. R.; 60 acres under cultivation; 2 pasture with running water; good 2-story 6-room house, hardwood floors and stone basement; barn 40x50; small orchard. Excellent farm, good neighborhood with all conveniences, schools, churches, bank, macadamized road, etc. Price \$6,000.00, \$3,000.00 cash, balance terms at 6%. H. M. Wright, Menominee, Mich.

FOR SALE—Any part of 100,000 acres stock lands of farms in Michigan or Wisconsin. Write for books and prices. Menominee Abstract & Land Company, Menominee, Mich.

"THE RIVIERA"—Grace! Beauty. Wonderful clear tone! Acoustic, mechanical perfection! The only 4 cabinet phonograph sold at \$60 up. Completely equipped, unlimited service guarantee, shipped on approval. Patented outing houses, knockdowns, motors, supplies. Records 70c up. Catalog 10 stamps. Riviera Co., Milwaukee.

FOR SALE—2,000 Acres land, in one block. Excellent soil. Well located. Price and terms attractive. Write Fred A. Roper, Menominee, Michigan.

NEED CASH—Sacrifice beautiful \$150 phonograph and 6 records, electric light, needle-point, stop, guaranteed like new. On approval, \$50 cash, 593 Bartlett A., Milwaukee.

IDEAL SHEEP LAND—Fertile soils that grow corn, wheat, oats, barley peas, vetch, clover, alfalfa, fruit and vegetables, in 1,000, 2,000 and 3,000 acre tracts, and smaller if desired. \$10 to \$15 per acre, easy payments, interest 6%. Easily cleared, well grassed and watered by small lakes and streams. Located in the heart of Lower Michigan's clover seed belt. No payments required if responsible purchaser will grow annually 4 per cent of acreage to clover and apply proceeds from seed yield upon payment of land until paid for. Clover seed one year after another. In Presque Isle County nets growers \$100 an acre. John G. Krauth, Millersburg, Mich.

FOR SALE—Pure bred Guernsey bull, 2 1/2 years old; Sire, Mash easy choker; dam, Carlon Chosan. Price, \$200, or will exchange for breeding ewes. Address Herbert Burrows, Emetta P. O., Lake County, Minn.

FOR SALE—Several sections of best cut-over land, near railroad, on good roads, close to Superior, \$20 per acre, easy terms. Also have a few good improved farms for sale. For information, write John W. Lake, Poplar, Wis.

FLORENCE COUNTY, WISCONSIN LANDS

for sheep and cattle ranches, in tracts of 320 acres up to 5,000 acres. For full particulars, write

PETER MCGOVERN LAND CO., Florence, Wis.

Upper Peninsula Cut-Over Lands

Suitable for Grazing or General Agricultural Purposes

FOR SALE

in Alger, Chippewa, Gogebic, Luce, Mackinac and Schoolcraft Counties

THE Northern Peninsula of Michigan is the best Livestock and Dairy country in the United States, if not in the world. It can care for 8,000,000 sheep and 1,000,000 head of cattle.

For information write

LAND DEPARTMENT, Charcoal Iron Company of America

MARQUETTE, MICHIGAN

The Keweenaw Land Association Ltd.

— OFFERS —

Cutover Lands

in Chippewa, Dickinson, Iron, Gogebic, Ontonagon and Houghton Counties in the Upper Peninsula of Michigan in tracts to suit

Clay loam, sandy clay loam, sand loam and sand soils at \$5.00 to \$15.00 per acre. Generally well watered.

J.M. LONGYEAR, Agent, Marquette, Mich.

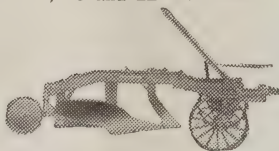
D. S. DEAN, Treas., 87 Milk St., Boston, Mass.

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Farm Mortgages
Negotiated for
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LA CROSSE
TRACTOR GRUB PLOW
For the Heaviest Work
18, 20 and 22 Inch Sizes



LINDSAY BROS. CO.,
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Used
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LANDS

20,000 Acres in the Mille-Lacs Lake region—Mille-Lacs, Morrison and Aitkin Counties. The stockman's paradise of Minnesota. Grass in abundance, blue joint and redtop, five to six feet in height, timber loam, clay subsoil. The greatest grass and clover producing district in Minnesota. Forty acres to a section. Easy terms. For particulars, write

E. L. TRASK,
104 So. 4th St., Minneapolis, Minn.

FOR SALE

Ten thousand acres of choice land in Itasca County, Minnesota. Fine soil, good roads. Will sell in small tracts. Easy terms. Address

B. B. SHEFFIELD
922 Flour Exchange,
Minneapolis Minneapolis

PILLSBURY LAND SYNDICATE

own and offer for sale in tracts to suit 50,000 acres choice cut-over lands in Aitkin, Cass, Itasca, and Hubbard Counties, Minn., near good markets and schools. \$12.00 to \$20.00 per acre on very liberal terms. Send for lists and maps.

1227 Metropolitan Life Bldg.,
Minneapolis Minnesota

\$1.50 per acre cash, balance on or before 20 years, 5% interest. Minnesota "cut-over" land in the CLOVER district. For sale by owners. Write for list.

Crookston Lbr. Company,
906 First National-Soo Bldg.,
Minneapolis, Minn.

MINNESOTA HOLSTEINS

lead the world for size, type, health and production. For definite information on the world's greatest cattle, write the

**MINNESOTA HOLSTEIN FRIESIAN
BREEDERS ASS'N.,**
406 Market Bank Bldg., Minneapolis

RED RIVER LUMBER COMPANY,

807 Hennepin Ave.,
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DEALERS IN

**Northern Minnesota
Unimproved Lands**

Write us for descriptions and terms

FARMS— —FARMS

Real farm homes are building daily in Upper Minnesota and Northwestern Wisconsin.



Wild lands at low prices become fertile agricultural areas in a few years.

You, too, can acquire a farm—a real home—where your labor will represent comfort and independence.

The Minneapolis Association of Commerce has no land to sell. But it wants you to write for information, for suggestions, and for advice. The city's foremost business men—bankers, manufacturers, merchants, and professional men—earnestly desire success for every settler in the territory surrounding the city. They want to help you toward this success.

ADDRESS THE

NORTHWEST DEVELOPMENT COMMITTEE
ASSOCIATION OF COMMERCE MINNEAPOLIS, MINNESOTA



A farm— your own!

In a Great New Country;
where men with less than
\$300 have succeeded; where
\$1,000 is CAPITAL; where
a year or two of consistent
work will make you inde-
pendently successful.

Our Development Depart-
ment can tell you about
these farms and this coun-
try; can help you find a
location, friends, business
connections, banks.

Write for information.

Green Bay Association
of Commerce
Green Bay Wisconsin



What Will Minnesota Do About It?

(Continued from page 37)

election, because those divided votes will count for naught when tallied against the solid vote of the Leaguers under the guise of being Republicans.

Recognizing this danger, the Republicans of the state held a conference on May 8, and selected a Republican ticket lead by J. A. O. Preus for governor, a ticket which could harmonize all elements in the Republican party and which may easily be nominated if given united support by the Republican voters of the state.

The managers and leaders of the Non-Partisan League have practically all been candidates in various states and at various times for public office on the Socialist ticket. Now they are directing a campaign under the name of the Republican Party in Minnesota with a ticket made up of none but Non-Partisan Leaguers. Standing alone as a Non-Partisan League ticket on Non-Partisan League issues with honest and bold announcement of its support and allegiance to the Socialist party, the I. W. W. and Bolshevism, it would gain scant support in the state. But with the principles of Republicanism used as a veil to hide the sinister policies advocated by the leaders of the league before they invaded Minnesota and to mask their revolutionary motives, they have built up a perspective of victory through one of the shrewdest pieces of political chicanery that the country has ever seen.

The people outside the state of Minnesota are anxiously awaiting the outcome of the primaries June 21. They are wondering whether the Republicans of Minnesota will unite and save their party from this character assassination or whether they will not take the matter seriously until it is too late to remedy.

Perhaps the keenest observers of this odd political situation are the members of the big farm organizations of America, who made quick work of dis-

posing of this sort of Bolshevik propaganda in a half dozen states, and the membership of these organizations living in Minnesota may be relied upon to do their utmost to oust Townleyism from that state.

Mr. Preus, who heads the ticket proposed by more than 1,100 representative Republicans of the state has served Minnesota in the capacity of insurance commissioner four years and as state auditor six years, having been re-elected to that office in 1918 upon the strength of the splendid record he had made during his first term.

Thus the battle lines are drawn, with an experienced man in state affairs at the head of a ticket composed of selected representatives of the Republican party on one side, and another ticket named by Non-Partisan Leaguers with out-of-state managers recruited from the hotbeds of Socialism, I. W. W. ism, and Bolshevism, but cloaked with the name of the Republican party.

The nation outside of Minnesota is waiting with interest to see the outcome of this tragic situation which will terminate at the primaries on June 21. If the Republicans stick together there is no doubt of the outcome, for their combined votes will leave Bolshevism in the mire of its own making; but if the vote is divided among "favorite sons" for nominations, then Townley and his Socialist-I. W. W. Bolshevik co-workers will capture the Republican nomination for an entire state ticket from governor down, and Minnesota will set the precedent of being the first state to advocate sovietism in America.

There are plenty of Republican votes to nominate Preus and the united ticket upon which he is running, but with the votes for governor split five ways among the Republicans the Townleyites will have a plurality over the leading Republican candidates at the primaries.

A DEPENDABLE RANGE

is the goal of every stockman. With a dependable range he feels sure of success and secure against future adversity. A tract of select, cut-over land in Cloverland offers stockmen this opportunity.

Tracts to Suit Needs

We have several choice ranges among our holdings which we will sell to practical stockmen on terms that will be to his advantage.

CONSOLIDATED LUMBER CO.

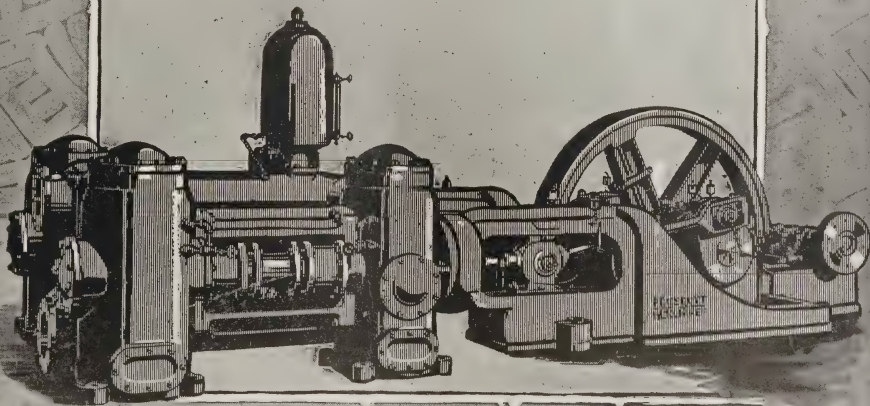
MANISTIQUE, MICHIGAN

"In the Heart of Cloverland"

PRESCOTT

MENOMINEE

MINE PUMPS



THE PRESCOTT COMPANY
MENOMINEE, MICHIGAN, U. S. A.

NOW

That Coupon is Worth \$2

on a Famous New Butterfly

More Than 175,000 New Butterfly Cream Separators Now in Use

How the COUPON Saves You \$2

By ordering direct from this advertisement you save all expense of catalogs, postage, letters and time. And we give you the benefit of this saving if you send the coupon below. Furthermore, isn't it better to have one of these big money-making machines to use instead of a catalog to read? Wouldn't you like to compare the New Butterfly with other Separators in your neighborhood regardless of price? Wouldn't you like to see just how much more cream you would save if you owned a Separator? We believe you would, so we send you a machine from our factory to try 30 days. Then if you decide you want to keep it the coupon counts the same as a \$2 payment. You take that much right off from our factory price on any size Separator you select. For example—if you choose a \$44 machine you have only \$42 left to pay in 12 easy payments or only \$3.50 a month. If you select the \$56 machine you will have only \$54 left to pay in 12 easy payments of only \$4.50 a month—and so on

The Coupon Makes First Payment And the Separator Itself Pays the Rest

You get the benefit of the great saving in time and work while the separator is paying for itself. After that the profit is all yours, and you own one of the best separators made—a steady profit producer the year 'round—a machine guaranteed a lifetime against all defects in material and workmanship and you won't feel the cost at all. If you decide to keep the separator we send you, you can pay by the month, or you can pay in full at any time and get a discount for cash. The coupon will count as \$2 just the same. The important thing to do now is to send the coupon, whether you want to buy for cash or on the easy payment plan. We have shipped thousands of New Butterfly Cream Separators direct from our factory to other farmers in your State on this liberal plan.

Pick Out the Size You Need

Order Direct From This Advertisement on Thirty Days' Trial. Use the Coupon.



You take no risk whatever. You have 30 days in which to try the New Butterfly we send you before you decide to keep it. Every machine we build carries a written Lifetime Guarantee against defects in material and workmanship.

No. 2 1/2—Machine illustrated at left. Capacity up to 250 lbs. or 116 qts. of milk per hour. Price, \$44.00

Terms: Free \$2.00 coupon with order. Balance, \$3.50 a month for 12 months.

No. 3 1/2—Machine shown at left. Capacity up to 400 lbs. or 195 qts. of milk per hour. Price, \$56.00

Terms: Free \$2.00 coupon with order. Balance, \$4.50 a month for 12 months.



No. 4 1/2—Machine shown here. Capacity up to 500 lbs. or 250 qts. of milk per hour. Price, \$65 Terms: Free \$2 coupon with order. Balance, \$5.25 a month for 12 months.

No. 5 1/2—Machine shown here. Capacity up to 600 lbs. or 300 qts. of milk per hour. Price, \$74.00

Terms: Free \$2.00 coupon with order. Balance, \$6.00 a month for 12 months.

No. 8—Machine shown here. Capacity up to 850 lbs. or 425 qts. of milk per hour. Price, \$78.80 Terms: Free \$2.00 coupon with order. Balance, \$6.40 a month for 12 months.

It is Always Best—to select a larger machine than you now need. Later on you may want to keep more cows. Another thing—remember, the larger the capacity the less time it will take to do the work. (29)

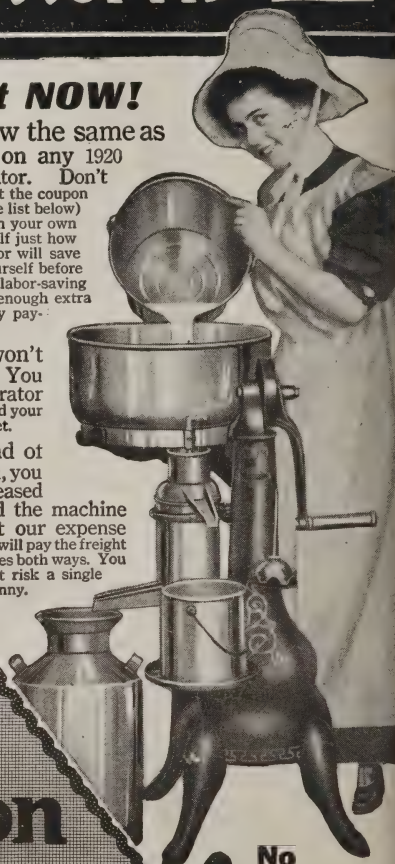
ALBAUGH-DOVER CO. MANUFACTURERS 2356 Marshall Blvd., Chicago

—But You Must Act NOW!

We will accept the coupon below the same as cash for full first payment of \$2 on any 1920 model New Butterfly Cream Separator. Don't send a single penny in advance. Just fill out the coupon telling us which size machine you want (see list below) and we will ship it for you to try 30 days in your own home. Then you can find out for yourself just how much a New Butterfly Cream Separator will save and make for you. You can see for yourself before you pay a cent how easily this great labor-saving money-making machine will save enough extra cream to meet all the monthly payments before they are due.

In this way you won't feel the cost at all. You will have the Separator to use on your farm and your money in your pocket.

If at the end of 30 days' trial, you are not pleased just send the machine back at our expense and we will pay the freight charges both ways. You don't risk a single penny.



No Discs to Clean

The New Butterfly is the easiest cleaned of all Cream Separators. It uses no discs—there are only 3 parts inside the bowl, all easy to wash. It is also very light running with bearings continually bathed in oil. Free circular tells all about these and many other improved features.

FREE COUPON

ALBAUGH-DOVER CO., 2356 Marshall Blvd., CHICAGO
Gentlemen: Please ship me on 30 days' FREE TRIAL, in accordance with your offer in

one New Butterfly Cream Separator, size..... If I find the machine satisfactory and as represented by you, I will keep it and you are to accept this coupon as \$2 first cash payment for same. If I am not pleased, you agree to accept the return of the machine without any expense to me, and I will be under no obligation to you.

I keep.....cows.

I wish to buy on.....terms.
(Cash or easy payment)

Name.....

Shipping Point.....

State.....Post Office.....

Name of Your Bank.....

COVERLAND

MAGAZINE

AUGUST 1920



These sheep were used to help clear land in 1919 in northeastern Minnesota, were wintered over, gave a good increase this spring, and have just had their winter coat of heavy fleece clipped.

\$200 in Gold Offered for a New Name for Golden Cup Coffee

*The Fastest Selling
Coffee in Cloverland*

We have found that one of the coffee houses in another part of the country has a prior right to the use of the name "Gold Cup" Coffee, with which name the U. S. patent office considers the name "Golden Cup" conflicts. Our use of the label, "Golden Cup" Coffee, has come to be the best selling and the most popular high grade Coffee in this part of the Northwest.

We desire to change the name at once to a new title which we can copyright.

The change, however, will be in name only.

The quality of Golden Cup, under its new name, will be the same.

We want to get, if possible, our new name from those who know and use and appreciate the merits of our "Golden Cup" Brand of Coffee, and so we now offer cash prizes of \$200 in gold in a sixty-day contest, opening August 15th, 1920, and ending October 15th, 1920, and open to every one without any restrictions whatsoever.

Here are the simple rules and conditions governing our offer:

1st—Any one anywhere may send in as many suggestions as desired for this new label name.

2nd—Whether we use or accept any names submitted, the prizes will be awarded by the judges and paid

in gold by us, and we will retain the right to use the names for which prizes are awarded on any goods packed or manufactured by the Carpenter Cook Company, if open to priority in the U. S. patent office.

3rd—The judges will award the prizes. We will pay the prizes on or before Oct. 30th, simply reserving the right to use any prize winning name or any other name we may select inside or outside of the contest.

4th—The contest to be decided by three judges:

ROGER M. ANDREWS, Publisher Cloverland Magazine;

WM. WEBB HARMON, Cashier Lumbermen's National Bank, Menominee;

GEO. W. ROWELL, JR., Advertising Manager, Lloyd Manufacturing Co.

Fill in attached form and mail to Coffee Contest Manager, Carpenter Cook Company, Menominee, Michigan, or hand to your grocer and ask him to send it to us. Send as many suggestions as you please, just so they are mailed to us on or before Sept. 30, 1920. But do not wait unnecessarily, for the first suggestions will naturally have the best chance, for priority of receipt will be considered where duplicate suggestions are received.

Fill in and mail today. Send in as many suggestions as you please, either on this form or by letter. Please do not use post-cards.

COFFEE CONTEST MANAGER,
Carpenter Cook Company,
Menominee, Michigan.

I suggest the following names for your use in place of the name "GOLDEN CUP" Coffee:

.....
.....
.....

Signed, (Name)

(Mail Address)

Date.....

1st Prize \$50 in Gold
2nd Prize \$25 in Gold
3rd Prize \$15 in Gold
4th Prize \$10 in Gold

And 20 Prizes of \$5 in Gold Each.

We invite the boys and girls, the youths and grown-ups, to enter this contest early and often. Your "Golden Cup" Coffee will taste the same and be the same under its new name. We cordially invite our friends to help us select this new name, and share the \$200 in cash prizes which we offer.

CARPENTER COOK COMPANY

"Golden Cup" Coffee is the Fastest Selling Coffee in Greater Cloverland

MENOMINEE, MICHIGAN



¶ Call! Call for Northern tissue, now. A refinement of old methods gives to this dainty bathroom paper an evident superiority and a remarkable economy. Insist on the right paper this time. Call! Call for Northern tissue, now.

¶ These superlative rolls—that “last longer and give greater satisfaction”—come to you out of the north woods under the most hygienic conditions. They are sanitarily made at Green Bay, Wisconsin, by the Northern Paper Mills—also makers of fine paper towels, for shop, office, kitchen.





"That IS a
Live Stock
Country—"

SHEEP or BEEF CATTLE

THE combination of the abundance of natural green feed, the adaptability of clover to the land, the closeness to the great markets of the country, and the LOW PRICES of the land is unbeatable and presents an unparalleled opportunity.

THE DAIRY COW

NOTWITHSTANDING the large areas of uncultivated lands, Northern Minnesota figures prominently in the production of dairy products in Minnesota. The rich, yellow milk from Northern Minnesota is truly a golden stream.

WRITE US FOR PARTICULARS

JAMES A. ARNESON

Commissioner of Immigration,

State Capitol, St. Paul, Minn.



CLOVERLAND **MAGAZINE**

REGISTRATION OF TITLE APPLIED FOR TO U. S. PATENT OFFICE

Published Every Month at Menominee, Michigan

VOL. XIV No. 4

MENOMINEE, MICHIGAN, AUGUST, 1920

\$1.00 A YEAR, 10c THE COPY

Sheep Ranching in Northern Minnesota

By I. W. LEE

Assistant Secretary, Duluth Commercial Club

THE sheep are doing fine, and we are going to take on more this fall." That was the concluding sentence of Dr. R. J. Bowe's remarks in summing up development and results to date of his sheep ranching venture in the cut-over lands of Northern Minnesota.

Dr. Bowe's story of accomplishment and future plans was so interesting and so comprehensive that to those to whom he was relating his experiences it seemed advisable that someone should make a visit to the ranch, and, on the ground by observation and conversing with those actively in charge, get the story that might be passed to others already engaged in the sheep industry, as well as to those contemplating engaging in the sheep business in the great and fertile cut-over land of the Lake Superior district known for the length and breadth of the land as "Greater Cloverland."

It so happened that I had the good fortune to be selected as that person to visit the ranch, and in as brief a manner as possible I shall attempt to set down here some of the things which I heard and observed while going to, and while on the ranch.

Associated with Dr. Bowe are Messrs. F. C. Stevens of Minneapolis, J. C. Bowe and R. W. Tanner, the latter being graduates of the Minnesota School of Agriculture. To Messrs. J. C. Bowe and Tanner have been entrusted the carrying out of the actual work and development. These four gentlemen and other friends, the names of which I did not learn, have allied themselves under the name of the Northwestern Sheep & Wool Company.

The ranch is located approximately 160 miles from Duluth by road, it being necessary to go to Ely, Minn.; thence southeasterly about twenty-eight miles.

One of the first questions which enters the mind of every practical man in observing cultivation or development of lands in a new section is, just what attracted that particular man to leave his former location and start in

a new venture. In this particular case at least three of the gentlemen named were either engaged or at one time interested in farming in Southern Minnesota.

In the case of J. C. Bowe he stated he sold a highly improved farm with good buildings and stock in order to engage in the sheep industry on a ranching basis, because, as he said, this country is a young man's country and offers opportunities to make money, which are not to be found in the more highly developed and thickly populated farming districts.

Mr. Bowe is by no means alone in this opinion. The desire on the part of every farmer to own his land and to make, not only returns from his yearly crop, but also to accumulate from the increased value of his land as developed, is causing yearly greater numbers to look to America's last great frontier of opportunity—Greater Cloverland.

When land prices reach the point where they are entirely out of reach of the farmer who rents his land, or

the man of limited means who desires to go farming, Northern Minnesota offers an interesting solution for his troubles. This applies, not only to the small farmer, but he truck gardener or dairy farmer, but holds equally as well for the cattle and sheep man of the West and Southwest.

During the past three years much has been said about sheep ranching and sheep on the farms in Greater Cloverland, and in view of this the story of the Northwestern Sheep and Wool Company is particularly interesting, because the plan of operation is directly in line with the best thought on how this proposition can best be handled.

In the first instance the Northwestern Sheep & Wool Company realizes that during at least ninety days there was quite a likelihood of snowfall in practical, therefore, in the summer of 1919 they started to put up such hay as was immediately available and such growth as they got from the land

which had been seeded that year. There was a considerable amount of natural upland hay, which helped materially, and in all, about 125 tons were put up.

It might be well to preface the figures and statements referring to this particular ranch by saying that the number of sheep which they contemplate can be handled in direct proportion to the amount of winter feed which can be grown or taken from their own land, and one familiar with the sheep business and accustomed to speak of sheep in thousands rather than hundreds, should bear in mind that for the immediate time the attention of the operators is directed more largely to the clearing up and preparing for cultivating the lands, but at the same time realizing upon the large amount of natural fodder taken by the sheep on the uncultivated areas, but keeping the numbers in proportion to the cultivated areas.

To get back to the story of the sheep, however, after this hay was stacked or in the sheds they turned their attention to the buying of sheep. They went over to Crookston, Minn., and while a Montana sheep man was feeding some of his stuff in route to market a deal was made for 500 head, and as Mr. Bowe says, it was not a hand-picked outfit by any means—in fact, a considerable percentage of them were not in any condition for market, but inasmuch as they had the hay and the sheep could be bought at a lower figure, they proposed to capitalize the fact that they had this winter feed ready for the sheep. They landed their carload in Ely on Nov. 8, but the sheep were not given any dry feed or feed prepared for the winter, until Dec. 10. This may surprise a great many who are of the opinion that a large percentage of the twelve months in the year witness snowfall. The fact of the matter is, however, that on Oct. 8, the day the sheep were unloaded, there was an early snow storm—something more than just a flurry. The sheep apparently, how-

(Continued on page 43)



In the Shearing Shed



A Bunch of Sheep Just Released from the Shearing Shed, Where They Gave Up Their First Cash Crop to the Company

CLOVERLAND MAGAZINE



Group of happy settlers at the Home Lands picnic. Every kiddie has a flag, typical of the American principals upon which the Home Land colonies are founded. Commissioner Norgard, of the Wisconsin Department of Agriculture, is standing in next to the back row. He is wearing a crush panama hat.

A Settlers' Colony Picnic in Wisconsin

By HENRY A. PERRY

THERE was a time when selling unimproved land in a new country was a "game," sometimes honest, sometimes precarious, sometimes downright disreputable and fraudulent. But that time has passed. During the past few years radical changes have been made in the farm lands "game." It is no longer a speculator's game, but a real business founded on just dealing and co-operation between seller and buyer, giving the settler value received for his savings and enabling him to immediately get on his feet and make his new home an asset instead of a liability.

This change was not brought about through legislation as other reforms are accomplished. A few far-sighted men, men with vision, conscience and human feelings, evolved plans for settlement which they placed in operation of their own initiative. The precedents set operated like magic in obtaining the very highest types of settlers, and simultaneously drove the dishonest land man out of business or caused him to reform and adopt some of the modernized methods of those accomplishing such splendid results with their square dealing principles.

When A. L. Mordt cast his lot in the cut-over country of Northern Wisconsin, he saw the great problem of converting the thousands of idle acres into profitable farms, and his survey of the situation convinced him that some new plan should be evolved that would materially aid the settler if prosperous communities were to be established within the span of an ordinary life. He told his story over and over, and the more he told it the more enthusiastic he became the more he caught the ear of some of the big land owners — land-poor because they refused to place their holdings on the market on the basis of the old methods of hawking forties and eighties to the settler who could pay the most down and forfeit their contract in a year or so because numerous handicaps prevent-

ed them from meeting payments. Mordt devised a plan whereby the settler would be given a chance to make good, and at the same time the owner would receive a fair return for his property.

No good man with a real message gropes in the dark very long, and Mordt succeeded in blocking up a large tract in the Oconto River Valley in Wisconsin and set about to sell it according to his idea of how unimproved land ought to be sold to settlers. Under the title, "Home Lands, Inc." with the "Home Lands Agency and Loan Association," as a close companion, offices were opened in Chicago and a campaign was launched to obtain settlers.

There was a real appeal in the Mordt plan that caught the attention of the land-hungry city laborer, mechanic, the farm tenant in the corn belt, and the small farmer trying to make ends meet on old, worn-out soils to the south of Cloverland, and even city men with a little capital and

more prosperous farmers to whom the plan "looked good." The Mordt proposition was driven at all inquirers straight from the shoulder, not as a philanthropy or charity, but as a straight business proposition in which the settler was expected to pay a reasonable price in exchange for guaranteed farm land, financial aid and the service performed by the company. The result was that inquirers became settlers, and soon the district in the vicinity of Mountain, Wisconsin, began pulsating with industry.

Forty, eighty and some time 160-acre tracts were sold with a rapidity that would make the old-time real estate operator blink in amazement. Prospects came to Mountain in droves, and one automobile after another was put into service to show them around. An expert agriculturist had made a survey of the land, and marked out the sections suitable for agriculture, for range purposes, and areas suited for nothing except rocks or possibly reforestation. No settler was per-

mitted to purchase land that could not be successfully farmed. The big acreages of range land were reserved for the western stockmen, providing there was a sufficient area to raise winter feed. The other land was classed "N. G." and not placed on the market.

A community center was established at Mountain, from which place all things pertaining to Home Lands settlement radiated. Houses were built for the settlers, barns that would suffice for the time being erected, tools and supplies were provided and loans were advanced to buy stock. Only a small payment down was required and then the settler was given long-time payments that might be met with revenue from the farm, after deducting a good living and necessary expenses for equipment and progressive improvements.

The settler was given the personal attention accorded when he was a prospect. A truck service was provided to carry supplies to him, and a bus was put on the roads to give him and his family means of transportation if the settler had no horses or conveyance of his own. Supplies were delivered at the door at wholesale cost prices, and farm products taken to market and sold to the best advantage. However, there has not been much selling as yet because the settlement is too young, and the farmers have not had an opportunity to produce much of a surplus over their household needs. This is the first year for many of them and only the second year for most of them.

There are now more than 200 settlers occupying over 14,000 acres of land, and every one of them is happy, contented, and getting along nicely. Some have five, ten, fifteen acres cleared, some larger fields, depending entirely upon the settler and the help he had. They are all living normal lives, some making a little better progress than others, just the same as people live and progress everywhere in the world,



Some of the Home Lands Kiddies at Closer Range

(Continued on page 27)

CLOVERLAND MAGAZINE



Farmers' Automobiles Parked at the Marshfield Experiment Station During a Program of Lectures and Demonstration

Modern Picnics at Experiment Stations

By F. L. MUSBACH

Director, Experiment Station, Marshfield, Wisconsin

TWO thousand farmer folks addressed by fifteen experts in their lines during a three-day session sums up briefly Farmers' Week at the Marshfield Experiment Station, held July 27, 28 and 29.

The Marshfield station is located two and one-half miles from the main street of the city of Marshfield. It was established in 1912. At that time an 80-acre farm was furnished the state by Wood County, on which to carry on experimental work. The State Legislature in 1919 saw the importance of the work being conducted and increased the acreage so that at the present time 180 acres are included in the Station Farm.

Farmers' Day has been an annual event since the station was established. During the early years one day sufficed for the farmers in attendance. Later years this was increased to two days and the session just closed was a three-day affair, and the crowds each day justified the extension from two to three days.

While the station is located in Wood County, it is in no sense a Wood County station. The soil found on the farm, known as Colby silt loam, occupies a tract of about 5,000 square miles, chiefly in Marathon, Clark, Taylor, Rusk and Wood Counties. The problems confronting the farmer on this soil type are to be solved in a very large measure by the Marshfield station.

The first day of Farmers' Week was given over to the farmers from Taylor and Clark Counties. This is the third annual pilgrimage of the farmers of Taylor County. Roland Kolb and H. Knipfel, county agents, had charge of the delegation. The second day was devoted to Wood County. Ralph Peterson, county agent, made this a record-breaking day in point of attendance. The last day was Marathon County day. Over 100 cars came from the county, some driving a distance of 60 to 70 miles. Mr. Swoboda, county agent, and Miss Brady, home demonstration agent, piloted the Marathon turnout.

The sessions during the three days were opened by the director in charge



A Few of the Farmers at the Marshfield Demonstration

of the station, who welcomed the visitors and extended to them every facility to get information and assistance. He referred to the increasing interest on the part of the farmers in the work the station is doing. Eight years ago a one-day session with about 75 in attendance to a three-day course with 2,000 people, some of them coming from distances of 75 to 80 miles, gives some idea of the interest manifested and the co-operation existing between the farmers and the local station. It is only through such effort and interest that the station can be of greatest service to the farming community of Central Wisconsin.

The station now embraces a tract of 180 acres, three-fourths of which is under cultivation. The greater part of this is yet in demonstration tracts. As funds permit, more land will be devoted to experimental work in taking up new problems in soil management and grain testing work that are now pressing for attention.

Mrs. Nellie Kedzie Jones, state leader of demonstration agents, in her witty, forceful way, emphasized the importance of having modern conveniences in the home. Their need is just as important as that of having modern machinery for the farm. She also urged the better care and feeding of the children in the farm home. Two hundred and fifty thousand children under two years of age died the past year because the mothers did not

know how to care for them, said Mrs. Jones.

A. J. Glover, managing editor of Hoard's Dairyman and also president of the State Dairy Council, brought to the attention of the farmers the value of milk as a human food. "Protein in milk," he says, "is a complete protein, you don't need to have any other protein in order to nourish your body properly. The growing child should have at least a pint of milk a day for health's sake; a body that is properly nourished is more likely to be disease-resisting." Recent investigation, according to Mr. Glover, shows that only one child out of six going to the country schools receive any milk to drink. He also urged the importance of supporting the Wisconsin Dairy Council, an organization whose prime purpose is to tell the people of this state and others the value of our milk product.

Edward Nordman, director of the state marketing division, spoke on the relation of the farmer to the experiment station and the work of the division of markets. He stated that farmers can make great use of the experiment stations in letting them help solve their problems. Farmers are too busy and have not the time to do experimental work. In this connection he stated that one of the important problems confronting the farmer is how to get clover back into the soil.

The division of markets was created two years ago. Mr. Nordman, who

has been a farmer for the past 37 years, is in charge of this office. The aim of the division of markets, stated Mr. Nordman, "is to shorten the route from the producer to the consumer. That doesn't mean cutting out the middle-men entirely. He is a necessity, he takes the products from the producer to the ultimate consumer. Our job is to make it just as easy as possible for the exchange from the farms to the city. When we have accomplished this we will have done what we can for all interests."

"We are also interested in farmers' co-operative organizations in order to help get better and fairer prices for the farmers' products. Our division aims to help the farmers in forming these organizations and to carry out the purposes as intended by the farmers organizing them."

Central Wisconsin is essentially a dairy section, cheese being the principal product manufactured. The raising of hogs as a side line was emphasized by Mr. Morrison, assistant director of experiment stations. At the station farm four lots of hogs are now under trial. This work involves a pasturing of crops adapted to soil conditions. One lot is pastured on peas, oats and rape, another on rape only, another on red clover and the fourth is in dry lot. Mr. Morrison pointed out that the cost of producing pork can be reduced materially by one or more of the pasture crops mentioned. All of the pigs are fed "cafeteria" style by means of self-feeders and self-waterers. The results of this work will soon be published in pamphlet form and available for farmers.

The afternoon program each day was divided into sections, the women's program being in charge of Mrs. Jones, assisted by Miss Brady and Miss Maloche. A part of their work consisted in an interesting exhibit of simple, useful garments made at very little expense from remnants and old discarded shirts, flour sacks and old underwear. Mr. Hayes, extension lecturer in poultry, emphasized the importance of culling out the poor producers. He remarked that there are

{Continued on page 17}



Scenes at the Annual demonstration of the Ashland Experiment Station. The first picture shows a crowd of men, women, boys and girls listening to a lecture on poultry by Professor Halpin at headquarters; the second is a crowd of farmers watching Professor Swenehart placing a charge of dynamite under a stump; the third is at the dairy barn, where Professor Luther gave a dairy demonstration.

CLOVERLAND MAGAZINE

Should Potato Growers Use Bordeaux?

By C. W. WAID
Potato Specialist, Michigan Agricultural College

THE use of bordeaux on potato vines has not been a very common practice in Michigan. This is no doubt largely due to the fact that the outbreaks of late blight have been so infrequent that the growers have preferred to take the risk rather than to pay for the cost to have the protection against this serious disease.

In 1915 which was the last season the late blight was serious in Michigan, Mr. J. C. Redpath, near Kalamazoo, secured an increased yield of 160 bushels per acre by making five applications of bordeaux. This is only one illustration of the benefit which bordeaux is to the potato crop when late blight threatens the vines. Seasons when late blight does not appear the influence of bordeaux has been sufficient to at least pay for the cost of the material and its application.

A comparatively new reason for using bordeaux has developed during the last two seasons. Most growers have learned what we formerly called tipburn which is a dying back of the tips and margins of potato leaves, especially during hot dry periods, is very largely if not entirely caused by the action of an insect called leaf hopper. Dr. E. D. Ball, who was formerly connected with Wisconsin University but now is located at Ames, Iowa, was the first man to discover and announce the fact that leaf hopper causes what had formerly been called tipburn. Dr. Ball has changed the name to hopperburn.

These insects are similar to aphids although in shape are longer having somewhat the appearance of a minute grasshopper. For a considerable time after they are hatched they remain at work on the underside of the leaves and may be easily confused with the aphids. Later in their development, however, they take on wings and in

this state they fly readily when disturbed. This habit makes them very difficult to control.

In 1919 the injury done by leaf hoppers in Michigan was probably greater than that done by the common potato bug. In many parts of the Upper Peninsula the crop was practically ruined. The work was more serious on Irish Cobbler and Triumph of the early sorts and on the Green Mountain on late sorts. The Rural and Russet Rural varieties are somewhat resistant to the damage by leaf hoppers. Late planted potatoes are also less likely to be injured than those planted earlier.

It is quite likely that when the growing season is normal as to moisture and temperature that the leaf hopper injury will be less serious than during a period of serious drouth. However, the damage done by this insect the last two seasons has been so serious that potato growers who were obliged to plant high priced seed this season will find it greatly to their advantage to try and ward off

other possible attacks of these minute enemies to the potato crop.

It has been observed by men in different states that where bordeaux has been used carefully and several times during the season that the amount of damage caused by the leaf hopper has been greatly reduced. It is not claimed by any that bordeaux is a sure preventive of leaf hopper injury. However, by applying bordeaux in which an excess of lime has been placed the danger of injury from leaf hopper is certainly to be considerably reduced.

Experimenters are under way this year to determine the best material to use and the best method of application. Our present knowledge is such that we do not hesitate to recommend a general use of bordeaux but would advise growers not to expect too much from its use in the way of protection against leaf hopper injury. If the outbreak of leaf hopper is not very great the bordeaux will probably keep them under control to such an extent that the damage will be very

small. On the other hand if the outbreak is serious the injury may be considerable even though bordeaux has been used. It will be well also to include some nicotine sulphate with the bordeaux, especially if the material can be applied in such a manner that it will reach the under sides of the leaves.

The nicotine will kill the nymphs which as has been stated remain on the under sides of the leaves.

The fact that we have not had an attack of late blight since 1915 does not assure us that we are going to continue to be immune from this trouble. The weather which we are having at the time this article is being written is ideal for late blight development. If we continue to have similar weather, that is, cool with a considerable amount of rainfall during August and September late blight will be sure to develop at least in some sections of the state. If the weather is unfavorable for late blight it will likely be favorable to the development of the leaf hopper. Thus the grower will very likely have some damage done to his crop no matter what the weather may be.

Bordeaux is a known preventive for late blight and as has been stated is also a preventive for leaf hopper injury to an appreciable extent at least. It would seem that with these facts before the growers they would use bordeaux more common than it has ever been used before.

The growers should keep in mind that bordeaux can be used in combination with poison sprays as well as with nicotine sulphate. Thus one operation will do the necessary work to kill bugs, prevent blight, and leaf hopper injury. Considering the injury the leaf hopper does, use of bordeaux is worth the time of any farmer depending upon potatoes for a cash crop.



Prof. C. W. Waid

The Minnesota Potato Exchange

By S. B. CLELAND
Assistant County Agent Leader in Minnesota

THE problem before us is to place our potatoes, in standard grades and quality, where they are wanted, when they are wanted. These words, part of the opening address of Chairman Ludwig Mosbeck, proved to be the keynote of the organization meeting of the Minnesota Potato Exchange, when that organization was formed at Little Falls, Minnesota, January 26 and 27.

The Minnesota organization is modeled closely after the Michigan Potato Growers' Exchange, which in two years of existence has proven remarkably successful in the marketing of the potatoes of Michigan. A central marketing agency for potatoes has been needed in Minnesota for years. Local potato shipping associations have been developed at many shipping points throughout the potato district, but almost without exception they have found themselves handicapped in the marketing of their product. Consequently the progress of the Michigan Exchange has been eagerly watched, and when it was finally proposed that a similar organization be started in Minnesota, the most enthusiastic supporters of the plan were the local shipping associations. They want to pool their strength in the sale of their shipments, and they look to accomplish this pooling.

The Exchange as finally organized was the outcome of a preliminary meeting called by the State Department of Agriculture, and held at Moorhead, November 6 and 7. At the meeting attended by delegates from about twenty potato producing counties, a temporary Board of Directors was chosen, who drew up the form of

organization and called the Little Falls meeting.

Delegates from sixty-one local potato shipping associations and interested communities were present at the organization meeting, and rarely has a meeting of this kind been held which could compare with it in intelligent

effort or in earnestness of purpose. Each detail of the organization plan was carefully studied and the articles of incorporation and by-laws were as good as it was possible for them to make them. A resumé of the main provisions of these by-laws is given below:



It Is the Object of the Exchange to Get Potatoes Direct to Consumers Instead of Marketing Through Speculators.

THE PRINCIPAL PURPOSE of the Exchange is to market Minnesota potatoes co-operatively. It may also arrange for the purchase of farm supplies, and for the marketing of other farm produce, if found desirable.

MEMBERSHIP is open to any local potato or produce shipping association in Minnesota, that is duly incorporated under the laws of this state, providing (1) it complies with the requirements of the by-laws, (2) becomes the owner of from one to ten shares of stock, and (3) gives evidence of its co-operative character, that is, that it complies with the following: (a) One vote to each stockholder; (b) Limit dividends on capital stock to a reasonable rate of interest; (c) Pro-rata earnings among members or patrons on basis of business furnished.

The Exchange is capitalized at \$15,000 divided into 150 shares of \$100 each.

Each local is entitled to one delegate and one vote at the meetings of the Exchange. These delegates elect a Board of Directors of nine, to have active charge of the business of the Exchange. Three of these directors are elected each year, and they will serve three years. The directors choose their own president, vice president, and secretary-treasurer from among their own number. They will also hire a business manager, who will have active management of the business of the Exchange, always subject to the directors.

Each local is an independent unit, exactly the same as local potato shipping associations are today; any existing local, or any new local that may

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A City Man Who Stayed on the Farm Job

By HENRY A. PERRY

MEN born and reared on the farm and later choose a vocation that takes them to the big cities seldom return to the farm, although their most happy reminiscences are of the "boyhood days down on the farm," and they dream of the simplicity of rural life on a beautiful estate during their declining years. Some purchase farms and become "agriculturists," living a few weeks or days on the farm each year, but leaving the farm management to a tenant or hired manager. Few actually supervise their farm or consider it as a going business concern as they do city enterprises.

Hunting a real farmer in the city is a task that leads through towering office buildings, rows of factories, the busy aisles of great mercantile establishments, the congested streets in the wholesale and jobbing districts, thence out along the paved highways and latter roads scarcely graded. Tips and leads given by enthusiastic urbanites and suburbanites result in disappointment. There are men who have large land holdings, great farms, but seldom see them. Others style themselves "farmers" and "agriculturists," but do nothing on the farm. There is a plenty of the country gentlemen idea, but a genuine, practical farmer, a man actually on the farm job, is indeed a jewel in the maze of skyscrapers, shrieking whistles, smoke, tooting automobile horns, gasoline, "extra" papers, strap hangers, the jostling throng that surges in waves up and down the sidewalks, alternately jammed and then strung out for a block at the monotonous signal of the traffic cop.

Frederick C. Martindale, of Detroit, is one of those rare finds in a great city. He is a real farmer and he personally manages a big farm, a farm of 600 acres. There is no "country gentleman" stuff about him or the farm. The farm is operated like any other farm, only a little bit better than most of them, for on the Martindale farm there is scientific breeding of live stock, pure bred grains, certified potatoes, crop rotations that give to the soil the maximum of fertility, conservation of all the assets of nature, and nothing is permitted to go

to waste or not play an important factor in making farming a real business.

Mr. Martindale is a lawyer by profession, but a farmer by birth, education, study, and practice. His farming is first and his profession afterwards. And his farming business pays revenue, equal if not greater than his profession. He makes it pay because he devotes time, energy and personal supervision to it.

The average city man that goes back to the farm in later years, or just talks farming over his desk and reads fancy farm stories, is completely out of date in modern farming, knows nothing of the progress that has been made in the science of agriculture within the last twenty or thirty years. All he knows is how "they did when I was a boy," and what some fluent writer whose farming experience is limited to a chicken dinner out in the summer kitchen and glimpses of fields from a flying automobile says about farming.

Mr. Martindale's live stock and agricultural literature consists of bulletins from the Michi-

gan Agricultural College and United States Department of Agriculture, together with such books on those subjects published by recognized authorities. He is a regular subscriber to several of the leading live stock and farm papers—publications that are in direct touch with all agrarian enterprises. His practical farm experience is limited only by the span of his life which runs parallel to the straight furrows in his fields, and he keeps abreast with the progress in successful farm management.

While the lure of a profession necessarily took Mr. Martindale into the city of Detroit, he never deserted the old farm just thirteen miles from the metropolis years ago, until the city grew and entirely surrounded him. The old farm had to vanish along with those of his neighbors, and is now cut up into city lots. But Mr. Martindale did not quit farming when he was driven off the old place by municipal

expansion of the automobile center of the world.

The pioneer of the far west disliked to see the railroad coming his

way, and when it did, he packed his belongings and moved a little farther ahead, to make another stand in advance of the onward march of hordes of people. So, when the Martindale farm was engulfed by the human overflow of Detroit and he could no longer continue the business he loves at the old stand, he purchased another farm thirty miles out and on an isolated road in Oakland County. He purchased 600 acres that had good natural drainage, one side having a river frontage. The farm was then divided into two units, a far-sighted business arrangement. A proper quota of men, horses, cows and farm animals was required for the farm, but a mile or more to and from some of the fields was too far for practical farming. Too much time would be lost traversing the lanes. There were some

old buildings on the acreage, each set occupying a strategic position for work and economy, and properly located to serve each unit of the farm with the maximum of efficiency and saving of time.

A good farmer was placed in charge of each unit, with full authority to take the initiative in all matters pertaining to the business, but Mr. Martindale personally supervises the entire farm. He directs what to plant, where and when to plant it, and the acreage to be used. The planting follows a definite crop rotation system which gives the highest yields per acre and retains fertilization. Nothing but pure bred seed from the Michigan Agricultural College is planted, for this city farmer knows just how much the yield will be increased as compared to the average run of seed. Seed beds are thoroughly prepared and cultivated crops are cultivated frequently and as long as the machinery can be used, to retain moisture in the soil and keep the field free from weeds.

There was only one occasion which broke into this careful system of crop rotation. That was the war. The entire farm, except for sufficient acreage to feed the live stock, was planted in crops to aid in food production. This gave the farm a set-back in fertility, but lost time is being made up now

(Continued on page 20)



The Martindale farm home, not a country mansion, but just an ordinary old farm house that has been fixed up a bit to make it more convenient and comfortable. While remodeling, Mr. Martindale dug out a full basement under the house, which provides ample storage room for the entire potato crop, other farm produce, and a furnace.



The emblem of the Michigan State Farm Bureau is tacked on a telephone pole in front of the Martindale home—a sign that ought to adorn every home.



This fine herd of Holsteins was bred up from good grades by the use of a pure bred sire—an economical process typical of good farming.



Mr. Martindale believes there should be sheep on every farm, and he has a fine herd of Shropshires which he bred up from grades.

CLOVERLAND MAGAZINE

A Library in the Most Remote Rural Districts

By HELENA LEFEVRE
Librarian, Spies Public Library, Menominee, Michigan

THE rural library of Menominee County is an established institution. It passed the experimental stage almost with the installation of the first allotment of books among the thirty stations throughout the county last winter. The books were eagerly sought when the announcement was made that they would be available at the various stations. Old and young, men and women, quickly borrowed books, and the demand for more books is increasing with each cycle of the turn-over of the selections at each station, which occurs every ninety days.

When the subject of a circulating rural library was broached to the County Board of Supervisors the proposition met with quick response and an appropriation was made to cover half the expense for a try-out for one year. The Spies Public Library of Menominee, the county seat of Menominee County, was the distributing agency. The expenses were fixed at \$5,000, and the Board of Trustees of the library agreed to pay half if the County Board of Supervisors would pay the other half. The supervisors of the various townships selected the locations for the stations, and named the rural librarians. Some of the stations designated were in private homes, some in stores, one in a cheese factory, and another in a sawmill boarding house.

Special book cases were made for the



A Librarian Wheeling Books a Mile from the Box Station to His General Store

rural libraries in two sizes, one to contain about 75 books and the other about 125. The style was original and designed to best serve the purpose for which they were intended, and which could be the most conveniently handled. The case resembles very much two identical boxes the depth of an ordinary book, with two shelves in the small size and three in the larger. These two boxes are fastened together with strong strap hinges, so that when the box is open the shelves present a neat appearance, and makes a very good looking book case. One may be stacked upon another, or they may be placed side by side, forming a larger book case of the sectional variety.

The cases are provided with lock and key, and a stout canvas cover. Strong handles are attached to each side of the case so that they may be easily carried. Every ninety days the cases are all shipped into the Spies Public Library, with a report from the branch librarian, for checking, sorting and distribution among other stations. Cases with new books go out simultaneously to all the stations at the end of each quarter, so that the books are kept in constant rotation and each station is continuously supplied with a new selection of books. Arrangements are made for holding books out beyond the 90-day period upon application to the branch librarian and special report to the Spies Library. Books on special subjects also are provided independent of the selections in the cases upon request to the Spies Librarian through the branch caretaker. So each community is really provided with a splendid library service, and actually has access to the thousands of books on the shelves in the library at the county seat.

Within two months after the con-

tract had been signed by the County Board and the Library Trustees, the staff at the library had selected and prepared for circulation 3,000 new books, and the circulating rural library was started on its happy way in mid-winter. The collections varied from 50 to 250 volumes for each station, about evenly divided for grown-ups and children, and each of these groups was divided equally into interesting stories and non-fiction books.

Considerable difficulty was encountered in establishing the libraries, as some were remote from railroad transportation and many roads were almost impassable on account of snow. On one trip we had a spill into a deep snow bank, and I recall the sensation of being buried under one of the 150-pound cases until I was dug out.

On an old logging road that passed through a tamarack swamp the team got stuck enroute to another station, and there we spent a freezing half hour before we got out. But it was really fun, and any hardship encountered was more than offset by the

warm greetings received everywhere from young and old when the books were delivered and the cases opened for service.

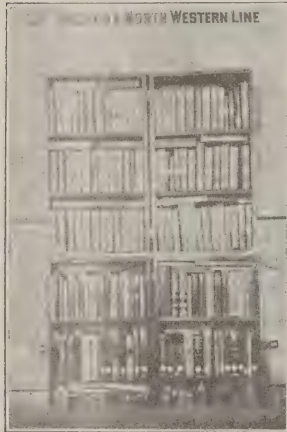
One of the smaller towns with a population of less than 300, had an original collection of 100 books, but after the branch librarian's frantic request, 25 more were added to the collection. These books in a period of 12 weeks went out 725 times. Aside from reading the new books at the library there had been no other amusement or entertainment. Some of the best books of fiction went out 17 times each.

Banat, an interesting community settled almost exclusively by Austrians whose farms radiate from the one

country store and school house in old country style, was reached after a bobsled drive of 13 miles over a logging road through virgin forest, and in a blinding snow storm. The storekeeper had been expecting the books for some time, but did not think they would arrive under such circumstances, so his welcome was all the more hearty. He promptly cleared a space at one end of a counter near the arctic rubbers, and the book cases were quickly unlocked and set up. The loggers lounging in the store, who had quit work because of the storm, eagerly stepped forward, and within the next few minutes every one of them was thumbing the pages of a book.

One of the most interesting experiences encountered in distributing the libraries was in a company sawmill town. A double tragedy had recently descended upon the town in the form of a disastrous fire which had wiped out the entire business block, and a strike was on at the mill. The company boarding house had been commandeered for a store and barber shop. The barber had been appointed librarian, and we were directed to the boarding house with the books. Although quarters were cramped, this enterprising barber had designated a small room as the "Reading Room," and provided a table and some chairs. He was too busy shaving his Saturday

(Continued on page 22)



The Library Set Up and Ready for Use in a Sawmill Boarding House.



A Cheese Factory That is Also a Library Station.



Anxiously Awaiting the Arrival of New Cases of Books at a Home Library.



The Store Keeper and Librarian in a Polish Settlement.

CLOVERLAND MAGAZINE

PURE BRED SEEDS

By W. I. BROCKSON, Seed Expert

CLOVERLAND is a natural seed growing region. The climatic and soil conditions of Northern Wisconsin and the Upper Peninsula of Michigan combine to make this territory excellent for the growth of rye, oats, barley, wheat, acclimated corn, soy beans, field peas, red clover, alsike clover, timothy and buckwheat for seed purposes. The rainfall is abundant and so distributed over the growing season as to make droughts rare. The nearness to the lakes gives a large part of this area as long a growing season as Northern Illinois and Indiana. The varied types of soil make it possible to grow a number of crops. The majority of soils, being loamy in character, do not harbor plant diseases as do the heavier clay soils in other states. Noxious weeds, the seeds of which are objectionable in commercial lots, are comparatively rare. Cloverland is a northern territory and its seeds, because of their hardness and high yielding power, are in demand in districts to the south.

When entered in competition with seeds from other areas, the products of Cloverland have been consistent winners. Authorities on seeds, who saw the exhibits at the Cloverland Farmers' Institute held at the Menominee County Agricultural School last March, say that the general quality of the seeds was superior to that of seeds exhibited in Lower Michigan. This was particularly true of the rye, barley and peas. It was also noticed that the samples of clover were especially clean and free from weed seeds. Since the beginning of the annual grain show at Madison, Wis., Marinette County has won more first prizes in proportion to the number of samples shown than any other county in the state.

In the spring of 1920, Brown County won the sweepstakes prize in the contest at Madison, open to Wisconsin counties. The many winnings which Cloverland seeds have made over seeds from other sections should encourage more farmers to discard common varieties and grow those pure bred varieties of farm seeds which have been especially selected for the conditions under which they are farming.

It pays to grow pedigreed seeds because they produce larger crops than

common seeds. In hundreds of farm tests in Wisconsin, Michigan and other states, pedigreed field seeds have out-yielded common seeds by 20 or 30 per cent. Pedigreed varieties have originated, in most cases, from single plants chosen by experienced plant breeders for their productiveness, hardness and other superior qualities. From year to year during the development period all except the very best progeny of these extraordinarily good plants have been discarded. After several years of careful selection, usually at experiment stations, these new strains have been compared with ordinary seed in many widely separated communities. Only those new strains which have clearly demonstrated their ability to produce consistently high yields have been generally distributed among farmers as pedigreed varieties.

Pedigreed varieties are more hardy than common varieties. They are bred to resist drought, rust, frost and other adverse conditions. Several pure bred varieties, for instance, Wis-



Grown in a Center for Pure Bred Seed Corn

varieties usually produce bigger crops than unselected seed during unfavorable growing seasons.

Many pedigreed varieties are developed to thrive on special types of soil.

same rule applies to seeds. Nevertheless, because of their many superior merits, pure bred seeds are being demanded in rapidly increasing quantities and command better prices than common grains.

The cause of better seed in Cloverland should be aided by the efforts of a new concern, the Marinette Seed Company, Marinette, Wis., the organization of which was formally completed July 1. This company will deal primarily in those pedigreed seeds suited to Upper Wisconsin and Michigan. It is interested not only in selling, but will furnish a market for strictly high-quality pedigreed seeds. The company will endeavor to cooperate with the State Universities, the Crop Improvement Associations and similar organizations in their efforts to improve the quality of seed grown on the average farm.

The practical farmer has come to know that pure-bred live stock pays the biggest returns, and he eliminates the animals that do not produce up to standard. A difference of five, ten, and as high as fifteen bushels of grain to the acre is worth considering, and this increased yield may be accomplished by merely using pedigreed seeds. No more labor is required and the additional cost is so slight that it is offset many times by the increased production. And still another profit comes in at harvest time—a better price for the seed when grown for the market. Northern pure-bred seed is in demand.



A Field of Buckwheat Grown from Pure Bred Seed

consin Early Black soy beans and Wisconsin No. 25 corn, have been chosen to mature seed ahead of the frost. Red Rock winter wheat is a comparatively new variety which is proving to be especially hardy in Upper Michigan. Wisconsin No. 7 oats were developed to avoid attacks of rust. Pure bred

Rosen rye is an excellent high-yielding variety adapted to several kinds of soil. Improved Swedish Select oats were planned to yield especially well on sandy soils. Wisconsin No. 7 and Iowa No. 305 oats were bred to stand up well on heavy soils having large amounts of humus. By choosing pedigreed varieties suited to the peculiarities of his soil, a grower can get larger yields than by growing ordinary seed.

For several years the University of Wisconsin has recorded the yields of pedigreed varieties of grain grown by farmers in the state, who are members of the Experiment Association. In the following table are given the reports of the yields of the pedigreed varieties in 1916, and a comparison made with the average yields of grain for Wisconsin, as reported by the U. S. Department of Agriculture:

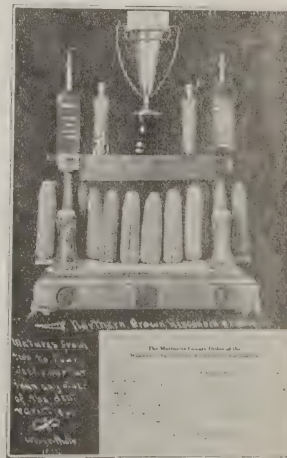
Kind of Crop	Avg. Yield Per Acre Wisconsin		Avg. Yield Per Acre Pedigreed Var.		Increase Per Acre of Pedigreed Var.
	Bu.	Bu.	Bu.	Bu.	
Barley	35.5	37.56		2.06	
Oats	46.5	57.8 (1)		11.3	
Rye (winter)	13.5	24.2		5.7	
Corn	23.0	51.3 (2)		28.3	
Winter wheat	23.0	26.6		3.6	
Spring wheat	22.5	28.3		5.8	

(1) Wis. Pedigreed No. 1. (2) Wis. Pedigreed No. 7.

The growing of pure bred seeds costs no more than the growing of inferior seeds. The outlay for plowing, seeding, cultivating, fertilizers, harvesting and threshing is just as great for poor as for high grade seeds. The cost of keeping "boarder" cows is just as much as for high producers. The



An Exhibit of Grain at the Cloverland Farmers' Institute That Would Have Been Within First Money at Any Grain Show.



Cloverland Corn Wins First Prize at Wisconsin State Show.

CLOVERLAND MAGAZINE

A Swing Around the Circle at Fair Time

By L. D. TUCKER, of the Upper Peninsula Development Bureau

EVERY man to his taste, they say, and the saying would hardly be more applicable than in the case of the tourist planning the time and place for his summer outing. Tourists, as a great body of vacationists with varying tastes, likes and dislikes, might well be divided into distinct groups, according to individual tastes. There are some who prefer the open plain for motor-ing, others who seek the "forest primeval," some who cater to hill and valley and, again, a fair percentage who follow the crowd to the favorite shore.

And we have every reason to believe that Cloverland—the Upper Peninsula of Michigan—has created an almost entirely new group—the "fair followers." The past few years have established the fact that, with Cloverland's rapidly increasing popularity as a tourist objective, there is a distinct group of visitors who plan their trips for early fall that they might attend one of more of the several agricultural fairs held during the latter part of August and in September.

Just at this time of the year the farmers, their families and others who come under the caption of "good people" of Upper Michigan are very busy in preparation for the fairs in their respective districts. Watch the farmer measuring his crop and spraying his fruits; watch him coaxing his pure bred stock along on finished feed and fattening up the poultry—then ask him why. He is preparing his entry for the fair to be held in his county.

The county fair is an institution which has made rapid strides through-out Upper Michigan during the past several years. From an insignificant display of root crops and grains, in one or two battered display sheds, to the present three and four-day program of advanced agricultural and industrial exhibits, entertainment, and other features now a part of every fair, these annual events have come to be recognized as a vital factor in the community, and an occasion of considerable note. During the period of the war, celebrations of the kind were somewhat curtailed, but the fall of 1919 saw a number of the most successful fairs ever experienced in Cloverland's history, and this year even more is looked for and confidently expected.

The scope of the fair is enlarged in every way. Not long ago it was all for the men—and the work of man alone was featured in the display. Now, however, women are coming forward and are taking an equally active part. The hand-work exhibits are a distinct feature and, likewise, practically every fair has its home economics display—exhibits of cooking, sewing and other arts in which the better half excels.



A Wartime Display at One of the Upper Peninsula County Fairs Which Attracted Wide Attention, and Which Reflected Patriotism with Food Production.

The amusement and entertainment phase, too, has come to be recognized as the drawing card feature. More attention is paid to the purely "carnival-raising" phase in the engagement of carnival companies, the arrangement of horse, motorcycle and automobile races and, in fact, there is a constantly increasing effort being displayed to make the county fair attractive not to the farmer alone, but the city man, the women and children, all classes and ages. The effect has been strikingly noticeable. Last year the fairs reported remarkable increases in attendance and gate receipts, as well as entries brought in and premiums paid out in prizes.

And so it is that the past two years particularly has brought about a very noticeable tendency on the part of a distinct class of middle-western tourists to plan their annual outing in consideration of Cloverland's fair season. This year a particular effort is being made to prepare for the occasion from this end. Realizing the possible benefits to be derived from the outside interests, exhibits which will excel anything in Cloverland's fair history are being planned. The interest and enthusiasm is at a higher pitch than ever before. Counties, cities, and townships are co-operating in the task

to set forth the advantages of Cloverland to the utmost in the 1920 county fairs, and there is every indication that the fall tourist to Cloverland has a rare treat in store.

And the Cloverland county fair, today, is something more than an array of vegetables, live stock and needle work. It is an occasion which serves, jointly, as an annual conference between the farming and industrial classes of the entire peninsula; it is an event whereby the people of one section learn of the work done by their neighbors in another; to the farmer and his family it means an annual "outing" of the old-fashioned kind, when "ma," the kids and all the movable live stock are packed into a double-seater and driven miles over all kinds of roads for the two or three days' outing. In fact, it is one time in the year when the average farmer actually permits himself to forget his crops and his stock, his cares and worries, to take in the "doings."

In some cases, probably, it was purely accidental, in others, forethought, but the fact remains that the dates thus far announced for the various county fairs throughout Cloverland are so arranged as to make possible a circuitous trip whereby the tourist might attend almost every

event which is planned for Upper Michigan this fall. Rarely does this occur. As a rule, fair dates differ so widely that to attempt any kind of a route to include even the majority would have been a difficult task. But fate or forethought surely had the tourist in mind this year.

Let us trace a motor trip through Cloverland during early September, entering Upper Michigan from Wisconsin at Ironwood. Arriving at Ironwood on or about Sept. 8, 9 or 10, the tourist would find himself plumped right down in the midst of the throng out to attend the big Gogebic County fair, at Ironwood, on the dates mentioned. Ironwood is out to "cop" all honors for exhibits and amusement this year, and according to present plans they are well on the road to accomplish this aim.

Following Trunk Line No. 12, known to Cloverlanders as the Southern Route, and allowing one or two days, possibly, for camping along the way, the motorist would enter Iron County just in time for the annual fair there, which will be held this year on Sept. 15, 16 and 17. The Iron County fair will be held at Iron River and will be preceded, by just a day or two, by the Alpha Township fair, the latter being a "peppy" little event arranged by the citizens of Alpha for the display of the products to which the region is particularly adapted. The Iron River fair, too, is expected to be the largest in this region's history, and, incidentally, the motorist may gaze with awe upon the scene of the great conflict which but recently set the entire nation agog—the famous Iron River "Rumbellion." It's a chance of a life time to visit an historic battle—or "bottle" ground.

Unless Dickinson County had been concluded earlier in the itinerary, the motorist will miss out there, for the fair dates are Sept. 3, 4 and 5. The event in Dickinson County will be held at Norway, and premium books are already being distributed. Better try to ring this one in earlier in the month—they do it right in Dickinson.

The next stop-over to be encountered, Delta County, boasts two good county fairs, one at Escanaba, Sept. 21 to 24, and the other at Rapid River, the dates for the latter not having been announced as yet. However, both communities are keen rivals for first honors, and the result might well be imagined—they will produce two real fairs. Delta County, being on what has been termed the "sunny side of Cloverland," holds a wealth of interest for the agriculturist.

Alger County, next in the line of travel, recently elected officers for its 1920 fair, although the dates for the event have not yet

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The Good Old-fashion Display at the Country Fair Never Wearies Spectators and Keeps the Farmers Keyed Up in a Spirit of Friendly Rivalry.

CLOVERLAND MAGAZINE

Land Clearing Train in Northern Minnesota

By W. P. KIRKWOOD, Editor

Office of Publications, University Farm, University of Minnesota

IF 5 per cent of the 10,000,000 acres of Northern Minnesota's "cut-over" area can support potato warehouses, creameries, banks, and other commercial enterprises such as Minnesota's land-clearing train found this spring, what will not 90 per cent or 100 per cent do for the region? Some of those who went on the land-clearing train, which closed its six weeks' tour June 25, have been asking themselves this question and feel almost as if they had discovered a new Eldorado. There are 10,000,000 acres of good arable land in the region traversed by the train, according to estimates by the soils specialists at University Farm. The great thing is to develop this vast resource by push-

ing an advisor and consulting engineer for settlers who wish aid in solving their land-clearing problems and will plan and arrange for future campaigns by which the development of the resources of Northern Minnesota may be pushed through more rapid land-clearing. The university is now looking for such a man and hopes to have him on the job by this fall. Once the right man is secured, plans will take shape rapidly for next year and with these will be considered the larger program for succeeding years. Indications now point to the possibility of organizing land-clearing schools or short courses at different points in the state for the training of young men who will become land-clearing leaders or agents doing a service somewhat similar to that of county agricultural agent.

The land-clearing train of this year set out to give information as to the best methods of land-clearing. Just how the work would be developed could not be foreseen. On board the train were representatives of the Dupont and the Hercules Powder Companies, the A. J. Kirstin Company of Escanaba, Mich., of the LaPlant-Choate Company, Cedar Rapids, Iowa, and the Martinson Manufacturing Company of Wrenshall, Minn., manufacturers of land-clearing equipment; of the Knudsen Automobile Company, Duluth, distributors of the Cleveland tractor, and of the Agricultural Extension Division of the University of Minnesota, which operated a Conrath home-made stump-piler at the demonstrations given by the train. Each of these groups wished to display its equipment and show by practical operation what can be done with such equipment, and each group succeeded amazingly in its purpose. At every stop every phase of the demonstration was observed by large crowds. But this, while highly useful, after all proved of relatively minor importance.

The real big things resulting in the operation of the train were three:

The first of these was a new interest in developing the resources of Northern Minnesota and the individual farm. The region covered by the train contains approximately 10,000,000 acres of good agricultural land. It is said that about 5 per cent of this land

is now under cultivation, yet this 5 per cent is making the region rich. Rich in potato production, which requires scores and even hundreds of potato warehouses to handle its crops, and rich in dairy farming, calling for numerous creameries and cream shipping stations to handle its products. If 5 per cent of this area can do so much in swelling the wealth of this region, as is shown by bank deposits, there is a magnificent future before the region if land-clearing can be pushed and more of the fertile soil put under the plow. That this idea is taking root in Northern Minnesota is

form an association, buy dynamite in car lots and land-clearing machinery, and then work out a schedule by which a definite number of acres could be cleared on the land of each member of the association within a specified time, the members of the association contributing their labor. It was also seen that by such an arrangement it would be possible to clear on each member's land, all the way from five to ten, or even more, acres a year. At one stop this idea took such strong hold that the community leaders not only wished to organize an association at once but to employ one of the expert land-clearers of the train as its manager. This seed idea having been sown in a soil which has produced such wonderful co-operative effort as has that of Minnesota, it is not to be



Blasting Out a Tree with 20 Per Cent Dynamite, the Surest, Quickest and Cheapest Method.

ing back the brush line and destroying the barricades of stumps left by the lumberjacks.

This problem is one which has caught and stirred the imagination of those who backed the land-clearing train enterprise—the business men of the St. Paul Association and the Civic and Commerce Association in Minneapolis, the men of the Soo, the Great Northern, the Northern Pacific, and the Minnesota & International railroads, the manufacturers of explosives and of land-clearing machinery, and the people of the Department of Agriculture of the University of Minnesota. For this reason it is almost certain that another train will be operated next year making stops at other points than those visited this year.

But the program for land clearing in Minnesota is much larger than the operation of land-clearing trains. The next step probably will be the employment of a land-clearing engineer as a member of the staff of the University Department of Agriculture. This man will not teach land-clearing to young men in the college and school of agriculture but will serve as



A Stump Piler at Work During One of the Land Clearing Train Demonstrations in Northern Minnesota. This Device Saves Labor and Time, and Piles the Stumps High so They will Dry Out and Burn.

shown by the fact that this spring more than 1,000,000 pounds of dynamite were shipped in for land-clearing purposes, nearly five times as much as in any preceding spring.

The second idea emphasized was the possibilities in co-operation in land-clearing. The staff on the train was carefully organized. Every time it went on to a field for a demonstration, each group was assigned a particular part of the work to do, or a special area to clear, and each group took pride in trying to complete its job within the briefest possible time. As a result, in a few hours from three to five acres were cleared at every stop. This was a tremendous object lesson in co-operative effort, supplemented by a talk on the part of those on the staff, and it is not surprising that talk of co-operative land-clearing associations was heard among farmers. The idea was that a group of farmers could

doubted that it will take root and serve to speed up the work of developing Northern Minnesota's resources.

The third big result accomplished was in getting to the farmers of the region the fact that the "delayed system" of land-clearing has certain very decided advantages over the forced system. By the forced system a farmer goes after brush and stumps in a "hammer and tongs" sort of way. He chops, blasts, pulls, and breaks all in rapid succession to get the soil to producing with the least possible delay. By the delayed system he distributed the work over a longer time but reduces the expense, gets a moderate return quickly, and in the end gets his soil in better physical and more fertile condition. The forced system perhaps is necessary when a man is making a start on a piece of brush and cut-over land. It is necessary to get something under the plow at such a time, in order to provide the necessities of life. But after such a start, wisdom dictates the adoption of the delayed system as worked out by M. J. Thompson, superintendent of the Northeast Agricultural Experiment Station at Duluth.

According to this system a farmer in the late fall and early winter will cut timber and remove brush from such an area as he can cover. In the spring he will pile and burn the slashings on this piece. Then he will sow grass and clover seed among the stumps. By the following spring or summer he has excellent pasture and by turning in grade cattle cows he can make a profit of from \$10 to \$15 an acre from such land. The next spring and the next he repeats this process on additional areas. In from three to five years the stumps on the first area so cleared are ripe for removal and are taken out with comparative ease. The decay of roots and vegetation in the soil, the droppings of the cattle, and so on, have



A Woman Pulling Out a Stump by Hand at One of the Demonstrations Conducted by the Land Clearing Train in Northern Minnesota.

(Continued on page 34)

The Illustrated Monthly Magazine of Greater Cloverland
The Dominant Agricultural Publication of the Northwest.
(Combined with The Northwestern Farmer, the Sugar
Beet News, and the Northwesterner).
Established 1903.

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THE ANDREWS PUBLICATIONS,
213, 315, 317, 319 Quimby Avenue,
Menominee, Michigan

Entered as second-class matter January 27, 1916, at
the post office at Menominee, Michigan, under the Act
of March 3, 1879.

Subscription price, postage paid, \$1.00 a year in ad-
vance.

Advertising rates on application.

Make all remittances to Cloverland Magazine, or to R.
M. Andrews, Publisher.

AUGUST, 1920

Real Colonization in North- ern Michigan

THE 1921 Legislature of Michigan will be asked to make some needed reforms and changes in our laws with reference to immigration and development of Michigan's available lands. This is of prime importance, to the Upper Peninsula, where there are so many acres of available cut-over land, which experts have pronounced to be potentially the greatest live stock and agricultural section in the United States, if not in the world. Wisconsin and Michigan have already had remarkable success in co-operating with the right kind of men who have undertaken farm colonization work on an attractive, honest, workable and practical basis.

It is a fact that the season of 1920 has witnessed a very large influx of desirable farmers onto small farms in the Cloverland section of Michigan, Wisconsin and Minnesota. Cloverland Magazine has attempted to keep an accurate tab on these genuine farm locations and regrets to inform its Michigan readers that during this season the proportion of the farm settlers locating in Northern Michigan has only been 8 per cent as against 52 per cent for Wisconsin and 40 per cent for Minnesota.

Just as soon as our owners of large, available acreage put into practical use the method and plans which have proven so satisfactory in Wisconsin in the colonizing of cut-over lands, we shall see a great stimulus in immigration, which Cloverland believes that under the proper operations of such plans thousands of new farmers can be brought to Northern Michigan in 1921.

City and Farm Folks

FEW city people really know anything about the farm, but there are few city people who do not take occasion from time to time to tell the farmer how he ought to farm, all about the money there is in farming if it is done "right," and what he ought to do to make money on the farm. Most of them go into ecstasies over rural life, point out the pleasures and joy of living in the country, the independent life of the farmer, and the money he is making.

All the city folks say about exhorting atmosphere of the farm, all they say about "living close to nature," all they say about the superior tone of morality in rural life, are true. And what they say about there being money in farming when it is done right, is likewise true, but they don't know what the "right kind of farming" is. A great many farmers do not know themselves, and to teach them the proper methods, to solve their economic problems, is the mission of the county agent, the experiment stations and the agricultural colleges.

There is no harm in this city folk talk, except that it is really mislead-

ing to so many city people. Many urbanites actually believe all they hear some city wise-acre say about farming, and such idle talk leads to serious misunderstanding between city folks and farm folks. The city folks honestly believe the farmers are making a lot of money, even profiteering, and the farmer naturally resents this unjust imputation.

What is needed is an educational campaign in the cities that will eradicate these erroneous opinions. The farmer is getting his education through proper educational channels—from men devoting their lives to agricultural research in order that they may impart the knowledge they gain to the farmer for his financial and social benefit.

The farmer applies this information to increase crop production and gain greater yields from his live stock. Thus far the city people do not enter into his life or take an interest in his affairs. Not until actual contact is gained between the food producer and food consumer, although by a most circuitous route through various commission men and traders, do city folks discuss the farmer. Then the farmer usually comes in for lambasting and is charged with making exorbitant profits.

City folks are not inclined to analyze any problem unless it happens to relate to their own personal affairs, and are very apt to take snap judgment on problems relating to others. So they overlook, or perhaps justify the long line of profit takers that stand between them and the farmer. Here is where education of the city folks should begin. They should be taught the lesson of economy by more direct marketing. They should be compelled to learn more about the multiplied profits between the producer and consumer, more about the cost of marketing, all of which they pay for when they buy. Then there will be a better understanding between city folks and farm folks.

Cow Testing Association Dividends

COW testing associations have proven good investments in Michigan and Wisconsin in an unlooked for manner. They have earned an honor and considerable government aid this year, which is denied all other mid-western states which fell behind Michigan and Wisconsin in cow testing organizations and results they obtained.

Michigan and Wisconsin have been more active than other central and northern states in promoting and encouraging cow testing associations among the farmers. The purpose of the associations was to seek the "boarder" cows and incidentally find out which animals in the farm herd were profitable to the owner. Indirectly this research work did more than any other one element to encourage the use of pure bred sires.

The discovery of non-producers in a herd through testing caused the farmer to either accept a steady loss or replace the poor cow with a good one. As no sane man will tolerate a leak in profits when he knows it tolerates a leak in his pocketbook when he knows where it is and knows how to stop it, the members of these associations who discovered their losses, immediately adopted one of two methods to stop it. The poor cow was replaced with a good producer, or pure bred sires were used to breed up the stock to profitable production.

When congress in its "wisdom" decided to cut down the agricultural appropriation bill and the U. S. Department of Agriculture found itself short of funds to even continue the slight aid offered the states, a system of trimming was adopted so that the money available would go into those channels where prior appropriations had been most wisely used. When it came to the allowances for cow testing propaganda only a few states were apportioned a share of the fund, those ranking highest in accomplishments receiving the plum. Michigan and Wisconsin were the highest states in the central west in achievement, and for that reason will receive govern-

ment aid this year, while the other states must go it alone.

So the cow testing associations in these two states have drawn unexpected dividends in the form of government aid, which will enable them to continue the splendid work now so well under way and which has been reflected in the dairy profits the farmers themselves have been receiving since the "boarder" cows were weeded out.

Marketing

THE Farm Bureau is demonstrating that no other agency has ever done or is doing the necessity of better systems of marketing farm products, if the farmer is to receive the fair share of profit on his produce to which he is entitled, and at the same time reduce the cost of living to the consumer. No movement among the farmers of this country has ever gained such momentum and developed so rapidly as the state and national farm bureau organizations. There are reasons for this, and it does not require much theoretical analysis to explain them.

The prime reason is that the American Farm Bureau is organized on a sound business basis, is moving along sound business lines, and is establishing a sound business organization. Another reason is that the membership does not recognize politics or political parties, or permit political bunk from any source to interfere with its business. Still another reason is that the farmers have recognized the value of expert market and traffic men and employed them to handle their business. In other words, the farmers united in the Farm Bureau have organized for big and profitable business, just as any large business institution organizes its production, sales, and distributing forces on a profitable business basis. The only difference is that the farmers will have the biggest *big business* of all.

Of course, this huge organization is going to eliminate a lot of field buyers and speculators who profiteer on food by beating down prices to the farmer, and engineering distribution so that higher prices are squeezed out of the agencies that place the product in the hands of the consumer. The old system of milking the farmer and the consumer, who pays the accumulated bill has stood too long, and it must go. Too many non-producers have been making profits from food.

The Farm Bureau is straightening out the kinks in the line of produce that flows from field to kitchen to the profit of both producer and consumer. The cost of unnecessary handling also is reduced by direct routing to distributors, and market gluts are prevented and prices stabilized by regulating the flow of produce to market.

The Michigan Potato Growers' Exchange has accomplished remarkably successful results for the farmers, and at the same time has placed potatoes in the hands of consumers at lower cost and in addition given the latter a better quality of product. Minnesota has adopted the method of the Michigan association, and will do its first marketing through new channels this year. Wisconsin has a similar association.

This year the farmers of these three states have pooled their wool, which will be marketed when prices are right.

The Farm Bureau organization does not interfere with any of these co-operative marketing plans, but offers co-operative assistance, while it is busy with other matters of equal importance and solving many problems in transportation and marketing that no other agency could master.

Michigan is leading off in this Farm Bureau movement, now ranking second in the United States with a membership of about 75,000. The Michigan Farm Bureau is scarcely a year old, but it has accomplished wonderful results for the farmers already, and is moving along so rapidly that it is really difficult to keep pace with its progress. New members and county units are limited only by the ability of organizers to perform their work.

It is good business and sound business.

Land Clearing Specials

DO LAND clearing specials pay? They do. They pay big returns in educational value, in actually clearing the land, in obtaining settlers. Wisconsin has proven this to be true. Several years ago the Wisconsin Agricultural College conceived the idea of sending out a special train with a compliment of land clearing experts to teach settlers in the north part of the state the most economical methods of clearing land and converting the cut-over acres into profitable fields of grain, hay and pasture. Demonstration points were advertised ahead of the special, and sometimes the crowd found a small crowd gathered in a field of stumps, and some times there was a big crowd. The farmers looked on, some interested some indifferent, some critical, some ridiculing the idea. But the special went the rounds, and the following year made another circuit through the north part of the state.

Criticisms and even protests were fired at the Agricultural College and headed upon the head of Dear Russell, but the land clearing special became a fixture in the extension service of the college and the land clearing demonstrations annual events to every county in Northern Wisconsin. The crowds of spectators increased at each demonstration each year, and the impetus given land clearing became decidedly noticeable. Ditching with dynamite also became a feature of the excursions, and acres and acres of swamp land were reclaimed in the wake of the land clearing special. The farmers looked forward to the annual trips, and talked land clearing and ditching among themselves. The land clearing idea just grew upon them without their noticing it.

Last year the farmers and business men of the small and larger towns of Northern Wisconsin became so engrossed in land clearing that land clearing associations were formed in several counties and communities with specified acreages of cleared land this year as the goal. An association in Marinette County undertook the big job of clearing 18,000 acres of land this year. Rusk County shoulders the responsibility for clearing 6,000 acres, and several thousand of dollars in cash, land and prize were put for the best jobs of clearing.

Minnesota adopted the land clearing special idea this year, and it first train of experts made a circuit through the cut-over region of Northern Minnesota this spring. The farmers in Minnesota had heard much about the land clearing special in Wisconsin and of the results it had accomplished, so they were more ready to receive the innovation in their state, and there was not so much difficulty in getting large crowds at the demonstrations.

The significance of this first land clearing excursion in Northern Minnesota is highly pronounced, and is expected that thousands of acres will be cleared as the result of the initial trip. The farmers learned how to use low grade powder, place charges and effect other economic that will mean the saving of thousands of dollars, just as the farmer in Wisconsin had learned identical economies in clearing and draining their land.

Each acre cleared immediately becomes a valuable and permanent asset, and it is ready for the plow from year to year until the end of time, there is no way of estimating the value in dollars of cleared land. In addition to this permanent source of revenue the farmers have saved thousands of dollars through learning the use of cheaper powder and the placing of charges where they are most effectual; also when it is cheaper to use powder, a puller, or both.

The land clearing specials have paid big dividends, and it is expected Michigan will fall into line within another year.

The state can well afford to finance land clearing specials, even for taxation returns if nothing more. Tax from the cleared land will so increase the state revenue, that the venture is wise investment from this view alone.



If the Traffic "Cop" Were on the Job

By Permission of the Farm Implement News

Consumers Aided by Farm Organizations

WHAT the present widespread organization of Michigan farmers carries with it future benefits for the city consumer, as well as for the agriculturist himself, is the opinion expressed in a recent interview by R. Baldwin, director of extension work at the Michigan Agricultural College. The view held by some business men that the state is responsible for the food shortage and for the price of eatables is refuted by Baldwin, who points out that marketing associations reduce the cost of marketing and tend to stimulate production.

Neither the farmer nor the consumer has complete information in regard to the cost of production nor the cost of marketing food stuffs, and consequently each has misimpressions between them there are many misunderstandings," says Director

Baldwin. "The consumer says he is suffering under high food prices. The producer knows that the prices he receives will scarcely assure him a profit.

"The farmer remembers that under the individual selling system the spread between the price he receives and the price paid by the consumer was very great, and that neither the producer nor the consumer had any contact with the forces which established the original and final price. He has seen prices remain low while the season's crop was being bought by dealers, and rise when the bulk of the crop was in the hands of the jobber. The lack of collective bargaining power has weakened the farmer's morale and undermined his faith in his business, resulting in unfavorable rural life conditions, and exodus from the country, an unstable condition of agriculture, and, consequently, a de-

creased food production.

"The consumer has no reason to fear the collective power of the producers of food, but rather should rejoice in the growth of their organization and look forward to the future with more confidence and optimism because of the stimulus they will give to efficient, standardized production. Such results can already be observed from the work of the 'California Fruit Growers' Exchange,' the 'East Virginia Coast Produce Exchange,' and, in Michigan, the 'Michigan Potato Growers' Exchange' and the 'Michigan Fruit Growers' Federation.'

"All producers' organizations have included in their constitution efficient production as one of the primary functions. All of them cooperate closely with State and Federal forces working toward economic production of standardized articles. No organization has yet ever expressed an intent to con-

trol and limit production, except perhaps the cotton producers. The controlling factor remains as always 'the law of supply and demand,' and the expression of this law is ultimately the price paid for the product.

"The future food supply is much more certain when prices encourage production than when the returns for the crop leave the farmer too small a margin to finance further production operations.

"The chief concern of the food consumers of America should not be whether food prices shall decline, but whether there will be sufficient food to supply the needs of the people. The only safe insurance for the future is that food production be made a profitable business. The creation of marketing organization is an effort on the part of farmers themselves to insure the future of their business, which is the basic industry, Agriculture."

Primrose



Gets the Cream you can't see—

When you skim milk by the old gravity method—letting it stand until the cream rises and then skimming it—you lose from one-fourth to one-half of the butter fat that is in the milk. **You don't know this because you can't see that which is lost—it is a part of the milk.** Only the richest cream rises to the top.

With a **Primrose Cream Separator** you save all of the cream—it gets every drop. You add one-fourth to a half more to your cream volume. With butter and cream bringing such fancy prices as they are today, isn't this worth while? And, too, you skim the cream while the milk is still sweet and fresh. Butter made from sweet cream sells for the highest prices. And you can feed warm, fresh skim milk to your calves.

A PRIMROSE will pay for itself in a few months' time. See your nearby International dealer in regard to one of these cream savers.

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GREEN BAY, EAU CLAIRE, Wisconsin
ST. CLOUD, Minnesota

HIS STOCK IN TRADE

By REX BEACH

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(Continued from July Number)

"U-M-M! You're nineteen years old I believe!"
"Yes, sir."

"Well, then, an hour's delay won't be serious. Now you go back to your desk and send Mr. Murphy here. I'll let you know shortly whether Saturday night or this noon will be convenient."

It was perhaps a half-hour before lunch-time when Mr. Comer again called for Mitchell greeting him with the gruff inquiry:

"See here, do you think I'm going to advance you from twelve to twenty-five a week at one clip?"

"No sir."
"Humph! I'm not. I had a talk with Murphy. I think he's a liar, but I'm going to make it fifteen hundred a year and expenses. Now get busy and work your 'trade' for all it's worth."

Young Mitchell's knees wobbled, but, having learned the value of a black mask and a gun, he went through his victim thoroughly while he had him down.

"I'd like a traveling position the first of the year, sir, if you don't mind."

"All right! If you hold your present gait I'll give you the Western roads. Anything else you'd like? Well, then, git!"

That day Louis switched from the narrow-countered bakery-lunch route to regular standard-gauge restaurants; he ordered clothes like a book-maker's bride and he sent a cubic foot of violets to Miss Harris. At dinner-time he patronized Mr. Gross so tantalizingly that the latter threatened to pull his nose out until it resembled a yard of garden hose.

The whole boarding-house was agog at Mitchell's good fortune and Miss Harris smiled on him in a manner reminiscent of the good old ante-bookkeeper—one might say "ante-vellum"—days. She hinted that Mr. Gross' company did not wholly satisfy her soul-hunger, and even confessed that she was lonely; but this was Mitchell's Rock Island evening, and although the frank surrender in Miss Harris' eyes caused him to gasp as if he were slowly settling into a barrel of ice-water, he tore himself from her side.

Louis' batting average would have reached one thousand had it not been for the Monon. Miss Day, the young lady there, had a vocabulary limited to "Hello," "Too high," and "Good-by," and it became particularly galling to learn that the fellow at James & Naughten's was pulling down the business, so Mitchell went to Murphy with a proposition which showed that his mental growth had kept pace with his financial advancement.

"You need a new stenographer," he declared.

"Oh, do I? Why do I need a new stenographer, Mr. Bones?"

"Well, it would be a good investment, and I know a corker."

"Who is she?"

"Miss Day, of the Monon."

"I didn't know you cared for Miss Day."

"I don't. That's the reason I want her to work for you."

Murphy coughed slightly, then he agreed. "You're learning the game. We'll give her a three-dollar raise, and take her on."

Shortly thereafter Mitchell began to get acquainted with the new Miss Monon along the right lines, and gave her Thursday nights. She was a great improvement over Miss Day; she was, in fact, quite different from any of the others. She was small and winsome, and she didn't care to run around. She liked her home, and so

did Mitchell after he had called a few times. Before long he began to look forward eagerly to Thursday nights and Miss Monon's cozy corner with its red-plush cushions—remains of chair-cars, to be sure—and its darkness illumined dimly by red and green signal lamps. Many a pleasant evening the two spent there, talking of locomotive planished iron, wire nails, and turnbuckles, and the late lunch Miss Monon served beat the system's regular buffet service a city block. Of course they lit the red fire in front of James & Naughten's and turned the green light Mitchell's way. He had the right of way on the Monon after that, and other salesmen were side-tracked.

But this was too easy to last. His man affairs never run smoothly; it is a man's ability to surmount the hummocks and the pressure ridges that enables him to penetrate to polar regions of success. The first inkling of disaster came to Mitchell when Miss Dunlap began to tire of the gay life and chose to spend her Monday evenings at home, where they might be alone together. She spoke of the domestic habits she had acquired during her brief matrimonial experience; she boldly declared that marriage was the ideal state for any man, and the two could live as cheaply as one, a thought personally she saw no reason why a girl should quit work the instant she became a wife, did he. She confessed that Monday evenings had become so pleasant that if Louis could arrange to drop in on Friday also, the week would be considerably brightened thereby and her whole disposition improved. Now Friday were cinched tightly to the Big Four but the young man dared not acknowledge it, so he confessed that all his evenings except Monday were taken up with night school, whereupon Miss Dunlap, in order to keep abreast of his mental development, decided to take a correspondence course in Esperanto.

It transpired also that his attentions toward the Lackawanna had been misconstrued, for one night when Phoebe bade him adieu in the vestibule she broke down and wept upon his shoulder, saying that his coldness hurt her. She confessed that a rate clerk in the freight department wanted to marry her, and she supposed she'd have to accept his tardy proposal because a girl couldn't go on working all her life, could she? Then Miss Gratz, of the C. & E., following a red-letter night at Grand Opera, succeeded by a German cake and a stein at the Edelweiss at a cab-ride home, took Louis grave to task for his extravagance and hinted that he ought to have a permanent one who loved music as he did and whose tastes were simple and tonic.

When the literary lady of the Northwestern declined a trip to the White City and began to read Mark Crawford aloud to him Louis avowed to the gravity of the situation.

But before he had worked the matter out in his own mind that rate clerk of whom Miss Lackawanna had spoken dropped in at Comer & Mallon's, introduced himself to Mitchell and told him, with a degree of business which could not be ignored, that his attentions to Miss Phoebe Snow were distasteful. He did not state whom Louis' caller had the physical proportions of a "white hope," and it wasted few words. He had come to nail up a vacate notice, and he announced simply but firmly that Miss Snow's Wednesday evenings were to be considered open time thereafter.

(Continued on page 36)

At last—a truly-balanced dairy feed!

Pillsbury's Dairy Ration

A Pillsbury product
with a
Pillsbury guarantee

We Were Interested In Scientific Feeding

For years we have followed with interest the scientific feeding of the dairy cow. Her milk yield—and therefore her value—depends to a great extent upon the feed given. Three factors must be considered: the greatest milk production, economy of production, and the health of the cow.

Feed Should Maintain Health Of Cow

We have long felt that the third factor, the health of the cow, has, in the past, received too little consideration. Feeds have been mixed with the sole idea of obtaining high milk records. Not enough thought has been given to the necessity of replacing the wasted tissues worn down under the strain of the 7-day or yearly test.

The tests proved that here at last was a real feed. The cows liked it, production increased almost immediately, feeding costs came down and every feeder was enthusiastic. All realized that we had produced a remarkable feed. Read our guarantee.

So We Added Mineral Salts

In mixing Pillsbury's Dairy Ration we have made allowance for this tremendous drain on the animal by adding certain mineral salts. These salts have been combined with the other ingredients in just the right proportions to aid digestion, maintain the constitution and vitality of the cow, and insure healthy calves.

Proved By Tests—A Perfect Ration

When our laboratory tests assured us that we had the correct proportions of protein, fats, carbohydrates and mineral salts, when we knew that our mixing machines were mixing the various ingredients so thoroughly that analyses of different samples tallied exactly; then—and not until then—we took the feed to several of the largest dairy farms in Minnesota for *actual cow tests*.

Maintains Every Cow At Greatest Milk-Producing Capacity!

Pillsbury's Dairy Ration will bring every cow into a full flow of milk and *keep her there* during the entire lactation period. *This we guarantee.*

As one Minnesota dairyman put it, "I believe that if Pillsbury's Dairy Ration will not increase a cow's milk yield to the point where she returns a profit to her owner, she should be disposed of."

The Reputation Of Pillsbury Is At Stake

You would naturally expect an exceptional feed from Pillsbury. Pillsbury's Dairy Ration maintains the Pillsbury reputation for quality.

It is a clean, honest dependable feed. In competition with other feeds, both commercial and the uncertain "hand mixed" variety, it has proved its worth, time after time, both in volume and economy of production.

Pillsbury's Dairy Ration contains no "filler" of any sort. It is all feed, with 79.2 per cent digestible nutrients.

Pillsbury's Dairy Ration Contains:

Ground Oats, Wheat Bran, Hominy Feed, Linseed Meal, Standard Middlings, Corn Gluten, Cotton Seed Meal, Mineral Salts, *and nothing else.*

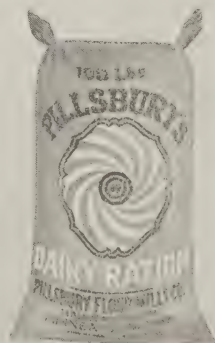
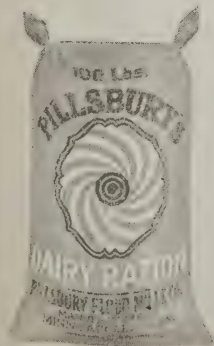
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Crude Protein	19%
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Famous Million Dollar Band, With Six Soloists. Eight Other Bands and Orchestras Day and Night.

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150,000 Square Feet of Exhibits and Demonstrations, Including All 1921 Models.

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(First Race at 1 P. M.)

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2:17 Trot\$1,000
3 year old Pace 800
2:03 Pace 1,200
2 year old Trot 500

THURSDAY

2:12 Pace\$1,000
2:10 Trot 3,000
2:05 Pace 2,000
Free-for-all Pace 1,200

WEDNESDAY

2:14 Trot\$1,000
2:15 Pace 1,000
2:10 Pace 3,000
2:06 Trot 1,200
3 year old Trot 800

FRIDAY

2:20 Trot\$1,000
2:20 Pace 1,000
2:09 Trot 1,000
2:08 Pace 1,200

AUTO RACING!

TUESDAY AND SATURDAY, AT 2 O'CLOCK

America's and Europe's Greatest Dirt Track Drivers and Cars.

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Monday, Tuesday, Wednesday, Thursday and Friday Nights, at 8 o'clock.

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SPECIAL EXHIBITS—U. S. Government, State Marketing, Wisconsin Department of Agriculture, Household, New Era and a Score of Other Added Exhibits.

SPECIAL SHOWS—The C. T. Kennedy 10-Acre Exposition.

THE MUDLESS AND DUSTLESS FAIR

Monday, Aug. 30—All Wisconsin School Children Free.

THE WISCONSIN STATE FAIR "Educates, Inspires, Entertains on Biggest Possible Scale."

Wisconsin Dairy Products

By GEORGE J. WEIGLE

Wisconsin Dairy and Food Commissioner

IT IS a proud moment in the history of a state when it can be truthfully said that in her development along certain lines that state has overtaken her older sisters and by every right has assumed first place in a land famed for remarkable achievement. When this has been brought about in the face of keen competition; when this pre-eminence is that of a producer of food products at a time when the world is sorely in need of food; and, above all, when this enviable position is based upon the production of milk and its derivatives, than which no other class of foods is more essential for the proper nourishment of the human race; then, indeed, it is an accomplishment worthy of the nation's unstinted praise.

Today the citizen of the state of Wisconsin knows that the dream of fifty years ago is now a reality. He knows that his state has steadily forged ahead along the lines of her destiny which became more and more plain with the passage of time. He knows that while progress was slow at first, the last decade has witnessed an almost unparalleled growth of that industry upon which the commercial

thirty-two cargoes would have been six times the revenue of the state.

The quantity of butter produced in 1919 is only a little less imposing than the cheese production. The total number of pounds of creamery and farm made butter is 105,943,665, with a valuation of \$57,235,843. Greatest in actual bulk of any one class was the output of the condensaries with a total just 510,000,000 pounds, valued at \$66,340,000. Over 4,125,000 gallons of ice cream, 30,000,000 pounds, were manufactured in one year.

This large production of a commodity which at one time was considered a mere confection, something to be sparingly eaten in the summer months alone, shows that ice cream is becoming established in the public mind, and on the public's menu for what it is—a food, rich in nourishment and suitable for year-round consumption. The four and one-half millions of dollars spent by the consuming public in 1919 for ice cream was money very well invested.

The city milk supply for Wisconsin's cities accounts for \$81,055,000 pounds of milk annually—\$27,379,000 worth. There is shipped out of the state for



structure of his state is so largely founded. And he realizes that his state, Wisconsin, is universally acknowledged to be the premier dairy state in the Union.

The basis of the dairy industry in Wisconsin, as it must be elsewhere if the industry is to prosper, is the multitude of dairy farms scattered thickly over the state. The farmers have not been slow to realize the value of the dairy cow and each succeeding year sees the number of dairy cattle steadily climbing. It is estimated that there are on Wisconsin farms today 1,846,000 dairy cows, an increase of almost 400,000 over the figure in 1919, and over 350,000 more than are possessed by the state of New York, Wisconsin's nearest rival. The gain in the actual number of dairy cows in Wisconsin as compared with a year ago is also the greatest shown by any state. Nor is this a record of mere numbers alone. Each year the herds are of better strain, the "scrubs" are being weeded out and the stock bred up on a quality basis until soon the herd which is not pure bred or at least "grade" will be the exception.

These dairy cows will produce in 1920 approximately 9,000,000,000 pounds of milk which will find its way into the channels of trade in the form of market milk, condensed or evaporated milk, butter, cheese, ice cream, etc. Production statistics for the year 1919 will convey some idea of the enormous volume and value of the dairy industry in Wisconsin. Three hundred eleven million, eight hundred forty-eight thousand eight hundred and seven pounds of cheese of all kinds were manufactured, valued at \$91,541,500. This represents more than one-half of the total cheese production in the United States. If this cheese had been shipped by boat and each boat was capable of carrying a cargo of 5,000 tons, thirty-two boats would have been required to transport the Wisconsin output. The value of these

manufacture into dairy products or for sale as market milk some 250,000,000 pounds of milk and cream representing a valuation of over \$7,000,000.

Finally, the enormous amount and value of factory by-products must not be overlooked. Skim milk from the creameries and that separated on the farm and whey from the cheese factories are playing a very important part in the development of the dairy industry because of their great feeding value which is being very generally recognized today. It is estimated that there were produced in Wisconsin in 1919 over 2,000,000,000 pounds of skim milk and over 2,500,000,000 pounds of whey with a combined worth, based on their feeding value, of approximately \$24,000,000.

Merely figures can convey but a poor impression of the immense proportions of Wisconsin's dairy industry. To say that the total value of the dairy products for the year 1919 was \$277,583,052.25 is to quote a figure so large that ordinary standards of comparison are inadequate. Perhaps, however, some conception of this industry's size can be formed by again making use of the illustration of the cargo boats, picturing the number of such boats which would be required to transport the dairy produce of the state in the form in which it is finally marketed. Excluding the by-products which remain in the vicinity where the milk is produced, the cheese, the butter, the condensary products, the ice cream, the market milk and the milk and cream shipped out of the state reached the imposing total of 2,188,513,991 pounds last year and even with no account being taken of the weight of the necessary shipping containers—considering only the net weight of the actual commodity—it would have required a fleet of 247 5,000 ton boats for their transportation.

These figures also may be considered a good argument for the Great Lakes-St. Lawrence tidewater canal.

Modern Picnics

(Continued from page 5)

just as many boarders in the poultry lot as there are in the dairy herd.

The important feature for the farmers during the afternoon sessions was the inspection of the demonstration and experimental plots. Two hours were spent in viewing the work carried on by the soil, and the agronomy department. E. J. Delwiche, agronomist for the station, gave the results of his work in the tests he has been following up in the growing of oats, spring wheat and winter wheat. The five best yielders of oats include Pedigree Wisconsin Nos. 1, 4, 5, 7 and the variety known as the Lincoln oats. These averaged from 49 to 55 bushels per acre the past five years. Spring wheat has not proven a dependable crop, at least in the common variety generally grown. Mr. Delwiche, however, has by a process of selection from some of the wheats under trial introduced a variety that promises to be a better yielder and in a measure more rust-resistant than any variety grown thus far.

Winter wheat is a more dependable crop than spring wheat on the Marshfield Station. For the past three years the average ranged from 26 to 30 bushels per acre. Pedigree No. 2 and Basco No. 408 are two of the varieties adapted to the Colby soil. Winter rye is hardly ever known to fail and excellent yields are obtained. Pedigree No. 1 and 1219 are two of the varieties recommended.

Much of the Colby soil requires not only surface drainage but also under-drainage. Eight years ago a tiling experiment was started. The experimental plot is so arranged that it is possible to get the yields from plots located 1, 2, 3 and 4 rods distant from the laterals. The improvement in the yield of corn, potatoes and alfalfa is very striking. The studies thus far show, however, that tile must be placed nearer than four rods in order to get maximum results.

The tillage experiments were viewed with a great deal of interest by the farmers. The work involves the use of subsoiling, deep tilling, deep plowing, medium plowing, shallow plowing and spring plowing. The work has been in progress for the past seven years and thus far the result of deep tillage has shown little if any beneficial effects. Plowing to a depth of six inches in the fall of the year, all things considered, is the practice recommended.

The Colby soil is invariably acid soil. The detrimental effect of this condition is becoming apparent on land that has been under crop for some years. The experimental work carried on has shown that liming is beneficial in not only getting better stands of clover but in improving the yields of other crops in the rotation.

Phosphate fertilizers, especially the ammoniated phosphate, has shown excellent results in increasing the yields and also pushing the maturity of the corn crop.

The program was designed not only for the farmers and their wives, but

COUNCIL MEATS

**Better Meats That Cost Less
No Waste · No Ice Needed
Always Tender
Ready-Cooked To Perfection**

Made in
Cloverland
in our
\$2,000,000
Packing Plant
at Green Bay,
Wisconsin

Every Council Brand
Label
Advertises Cloverland

Ours is the largest
producing industry in
Cloverland today.
Make it yours, too.

Only pay for the meat you eat— not for the trimmings and waste

WHEN you pay sixty or seventy cents for a piece of meat, a goodly part of it is wasted because you can't eat all the meat you buy. There are the fat and bones and trimmings—all paid for at the price of meat—and only a little of the fat can be used, the rest is just a loss. Besides which, uncooked meat contains much water that is lost in cooking—but you've paid for the water at meat prices.

But there is a way to overcome that loss, which is 15% or 25% of what you spend on meat today.

And that is by buying ready-cooked, wholesome and delicious Council Meats. There are many varieties of Council Meats—Veal Loaf—Roast Beef—oh, a host of good meat dishes—all so easily prepared! Why you'll be just a few minutes fixing the meat course for breakfast, luncheon or dinner.

But the goodness and the ease of preparation are minor advantages compared to the real economy you will find in buying ready-cooked Council Meats instead of meat you have to trim and cook.

INDIAN PACKING CORPORATION
Consumers' Building, Chicago, Ill.

Six Economical Meat Dishes

ROAST BEEF
For 5-70c

CORNEB BEEF HASH
For 5-70c

VIENNA STYLE
SAUSAGE
For 5-60c

SLICED DRIED BEEF
For 4-30c

POTTED HAM
For 5-80c

OVEN BAKED BEANS
For 4-25c



also in the interests of the young folks. E. Cooper, E. Stokdyk and J. Taylor were in charge of this line of work.

It is very encouraging to the men and women who are devoting their time to this type of instruction to see the great interest displayed by the vis-

(Continued on page 18)

FREDERICK C. MARTINDALE FOR GOVERNOR OF THE STATE OF MICHIGAN



Primaries
August 31st
—Advertisement.

1. He was born on a farm and has lived on one most of his life.
2. He owns and operates under his personal supervision a large well-equipped farm in Oakland County.
3. He advocates the providing of certain facilities by the State for the better handling and marketing of farm products.
4. He would encourage lake-to-ocean route as outlet to Michigan products and gateway for Michigan necessities.
5. He believes in generous treatment of service-men and their families.
6. He has had broad experience in State affairs as Representative, Senator and Secretary of State and as such took great interest in advancement of child welfare, pure food laws, health laws, laws relating to good roads and the betterment of farm conditions.
7. He has at heart the highest good of the State, the correlation of all its varied activities and the fullest development of its business, social and religious life.



E. J. Delwiche, the Greatest Pea Breeder in the World, Showing Farmers Exactly What Certain Varieties of Peas will Produce.

NORTHERN HARDWARE AND SUPPLY COMPANY

MENOMINEE, MICHIGAN

Our Cloverland warehouses are so situated that we are able to make prompt deliveries on all kinds of General Hardware and Mill Supplies.

Steel Bars
Chain
Wire Rope
Pipe and Fittings
Pumps
Hoists
Block Tackle
Dynamite
Blasting Caps
Blasting Fuse
Blasting Wire
Belting
Barn Door Fixtures
Stalls and Stanchions
Litter Carriers
Roofing
Galvanized Sheets
Logging Tools and Car
Wire, Wire Stretchers
And General Hardware
For Spring Delivery.

We don't want to sell you anything unless we have what you want and what you need. We believe our stock will cover your requirements.

Write for Prices

Long Distance Telephone 400

MENOMINEE

MICHIGAN

ROSEN RYE

NORTHERN GROWN SEED

Outyields All Rye

Berry nearly double the size of common Rye making the most attractive Rye grown.

PER BUSHEL \$3.00

E. C. WICKERT & CO. FARM

ESCANABA, MICH.



George Briggs, Agronomist, Wisconsin Agricultural College, at the Right, and M. H. Wright, Ashland County Agent, at Left, Taking Things Easy While Professor Morrison Talked in the Pig Lot.

(Continued from page 17)

itors, in the very strenuous program arranged for them. No longer can the meetings be called "Farmers' Picnics," for there is only time for a hurried lunch and greeting of friends. They are now truly *Demonstration Days*.

The Ashland Demonstration

THE annual farmers' demonstration at the Ashland Experiment Station was held July 21. A splendid program was carried out, only an hour for lunch being taken from the series of demonstrations which commenced early in the morning and

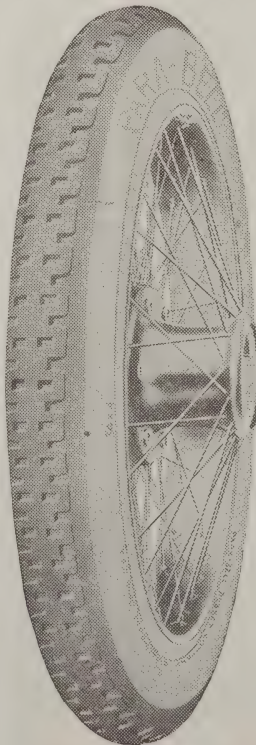
closed shortly after 4 o'clock in order to permit the farmers to return home in time for the evening chores.

The program began with five-minute addresses by E. J. Delwiche, in charge of the Northern Wisconsin experiment stations; E. L. Luther, county agent leader; Prof. F. B. Morrison, Wisconsin College of Agriculture; Mrs. Nellie Kedzie Jones, leader of home demonstration agents, and G. M. Household, assistant commissioner of immigration for the Wisconsin Department of Agriculture.

From 10 o'clock till noon, a stump blasting demonstration was conducted by John Swenehart, in charge of the land clearing activities of Wisconsin Agricultural College, and drainage by E. R. Jones.

After luncheon George Briggs, agronomist at the Wisconsin Agricultural College, gave a short talk from the

PARA BELL TIRES



are built for those who expect more than ordinary mileage from a high grade Tire.

Both Para Bell Cords and Fabrics are made oversize—Extra long fibre staple cotton and the toughest wear-resisting rubber assure Fabric Tires equal to 10,000 Miles of ordinary service and Cord Tires equal to 20,000 Miles.

Put Para Bells on all four wheels and you'll have dollars to put in the Bank.

All sizes, both Plain Tread and Non-Skid.

ASK YOUR DEALER

Morley-Murphy Hdwe. Co.

GREEN BAY, WISC.



F. L. Musbach Pointing Out the Results from Use of Various Kinds of Fertilizers

veranda of the headquarters, and then followed a series of demonstrations.

J. G. Halpin had charge of the poultry demonstration; E. L. Luther, the dairy barn; Prof. F. B. Morrison, the pig lot; F. L. Musbach, in the soils fertility fields and in the soils tillage plots; E. J. Delwiche, in the alfalfa plots, pea fields, spring grains and grain breeding plots, winter grain plots, and the silage and root crops fields.

While these demonstrations were going on Mrs. Jones conducted classes at headquarters, and the boys and girls were shown about the various experiment plots and stock barns by club leaders.

Considering the fact that the demonstration was held in the busiest part of the season, there was a big crowd out, about 400 farmers attending, and the total number of automobiles parked was 91.

Deep interest was taken in all the demonstrations, as the farmers of

Northern Wisconsin, especially those living in Ashland and Bayfield Counties, have learned that great benefit is derived from attending these annual affairs.

ANTICIPATING SEED DEMAND

Anticipating the day when the farmers of Upper Wisconsin will call upon them for seed of a superior quality, the Branch Experiment Station at Ashland Junction has been carrying on tests for years to find the best peas for that section.

"We have tried hundreds of varieties of peas," says E. J. Delwiche, in charge of the station. "We have some 200 varieties now on test and out of these we have a few varieties which are suited to our section."

Peas, pedigreed grain, sunflowers, corn, crop rotations, fertilizer experiments—these are a few of the things of interest which will be studied by Upper Wisconsin farmers.

MICHIGAN STATE FAIR

SEPT. 3RD — SEPT. 12TH

*Bigger and Better
Than Ever*

All profits go
back into
premiums and
permanent
improvements



**MORE MILK
MORE BUTTER**



MAKE US PROVE IT

R. 1, Wrenshall, Minn., April 28, 1919.

The J. L. Ross Co.,
Superior, Wisconsin.

Gentlemen:

I had about decided last fall not to feed any mill feed during the winter on account of the high price and results from feeding during previous winters. Finally, I decided to give your No. 11 dairy feed a trial. I began to feed it Dec. 16, 1918, and before Jan. 1st I found the increase in milk was paying for the dairy feed, and am satisfied we received the results you claimed for it. Not only that the cows have given a splendid flow of milk all winter and now are going onto grass in fine shape. Many who have seen the herd have complimented me on the condition of them and ask what I have been feeding, and all I can tell them is hay, bagas, and No. 11 dairy feed. I have recommended it to all my neighbors who had not heard of it.

Yours truly,

JEROME B. GILBERT.

Ask your dealer. If you prefer, write us direct for prices and some further dollar-and-sense facts.

SAVE FREIGHT SAVE TIME SAVE MONEY

THE J. L. ROSS COMPANY
SUPERIOR, WISCONSIN

Made In Greater Cloverland

10 Days 10 Nights

Sept. 3rd--Sept 12th

DETROIT



Good Farm Buildings

Good farm buildings mean buildings well planned, well placed and built of good, lasting lumber.

Nobody but you can place your buildings to suit you, but the place to go for the lumber is to your local dealer, because he sells "Old Faithful" Hemlock; and for the plans if you want them, for he has or can get for you FREE any of the 27 sets of full-size working plans which we have prepared for the assistance of all who build of good "Old Faithful" Hemlock lumber—the farmer's standby for a full 300 years.

Write us for a book on the kind of buildings you are interested in. We have nine of them, all different, and each book contains coupons good at your lumber dealer's for the plans—ALL FREE.

THE HEMLOCK MANUFACTURERS
(of Wisconsin and Upper Michigan)

Offices, 312 F. R. A. Bldg., Oshkosh, Wis.

We spread the good news about "Old Faithful" HEMLOCK, but we do not sell it. Get it from your LOCAL LUMBER DEALER.

"Old Faithful" HEMLOCK

300 years on American Farms

Menominee Saw Co.

Menominee

Michigan

MANUFACTURERS OF

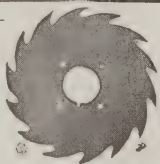
SHINGLE
HEADING
EDGER
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LATH
SIDING

SAWS

Fully Warranted

GANG
MITRE
GROOVING
CROSS CUT
DRAG
MILLING

SAW REPAIRING OF ALL KINDS



Cut-over clover lands in Sawyer, Bayfield, Rusk and Price Counties, Wisconsin, for sale in large or small tracts. Reasonable prices.

AMERICAN IMMIGRATION COMPANY,
Chippewa Falls, Wisconsin

A City Man Who Staid on the Farm Job

(Continued from page 7)

by having a larger acreage than normal in pasture and hay. But the cycle will turn next year, and the farm will continue on the rotation basis fixed before the war.

The farm is well balanced with live stock—some pure bred and the remainder all good grade. Some might wonder why Mr. Martindale has not all pure bred live stock. Well, the answer will illustrate the practical methods he uses in farming and prove that he is a real farmer, not a theorist or an "agriculturist."

When the old farm was sold there was no other place available that suited Mr. Martindale's ideas of farming, and all the stock was sold with the farm. When the new farm was purchased the owner did not start with a big splash. He bought seven good grade Holsteins and a registered bull for his foundation herd. The herd was built up by careful breeding, weeding out the cows that did not come up to standard tests, replacing with other good grades with records, and additional purchases along the same line, until the dairy herd now

numbers sixty, equally divided between the two farm units. This year Mr. Martindale added four registered cows to the herd, and will gradually eliminate the grades until the entire herd is pure bred from this foundation. A practical system that none but a real farmer could carry out.

The herd of sheep—Mr. Martindale believes every farmer ought to keep sheep—was built up in the same manner. The foundation herd five years ago consisted of seventeen good grade Shropshire ewes and a registered buck. The Shropshires were selected because of their dual purpose—wool and mutton—and because they are prolific breeders. Mr. Martindale never figures on less than a 100 per cent increase in the flock each year, and he has been getting it. He got in the market when the sheep market was good last year, and sold off 100 lambs last winter when prices were high, apparently scenting the decline in prices of wool and mutton which now is demoralizing the sheep industry. He has just fifty sheep on the place now.

The same story may be told of the swine. Mr. Martindale started the new farm with good Duroc Jerseys and has consistently followed the system of breeding up the herds. He keeps about fifty hogs on each unit of the farm.

Mr. Martindale does not go in for show stuff. He wants nothing but good farm animals. In the dairy herd he wants cows that produce the most milk for the ration and cost of keep. He wants the biggest fleece of good wool and the quickest maturing lambs, for the investment and expense of raising. He wants the hogs that grow the fastest on the same amount of feed that would be given to scrub hogs. He is just a practical farmer who wants profitable returns from the farm.

While this splendid farmer has never lost grip on the farm or neglected one detail pertaining to crop production or building up his herds of stock, he has successfully practiced law and performed a great amount of public service for the state of Michigan. Twenty years ago his neighbors selected him to represent

their district in the legislature. He was elected by a large majority but one term in the legislature was sufficient for this farmer, and he announced his retirement from politics with the close of the session. His record, however, had been too good, and a man of his type and ability was too rare to permit him to retire from public service, and his neighbors met the announcement with a demand he become a candidate for the state senate. Although he preferred farm life and his profession, he was elected state senator for two terms.

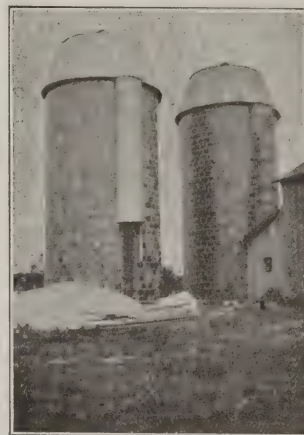
Whether his services in the both lower and upper house of the state legislature changed his attitude toward politics, nobody knows—perhaps not Mr. Martindale himself, but at any rate he became a candidate for Secretary of State in 1908 and accomplished the remarkable feat of obtaining the nomination without having visited one county in the state outside of Wayne. He was elected by a splendid majority, and again elected to occupy the same office in 1910.

Having rounded out two terms in this office his neighbors back in Wayne and Oakland Counties launched a Martindale boom for governor in 1912. He came within a very few votes of being nominated. This remarkable revelation of his popularity throughout the state caused the party assembly in Detroit to insist that he again become a candidate for Secretary of State, to add strength to the ticket. How wisely they acted is reflected in the count of the ballots, for Martindale led the ticket by many thousands of votes, and at a time when Republican votes were not so plentiful as in other years. In fact, it is conceded that it was Martindale who saved the ticket from utter defeat.

There was a reason for all this popularity, which is this: Every detail of the state's business had received the same careful attention Mr. Martindale gave to his personal business—his profession and farm. And in the legislature he took a prominent part in matters of legislation that pertained to the human welfare, such as laws to improve factory conditions in the industrial centers, child welfare, pure food laws, public health laws, and he has a record for being one of the most effective good roads legislators and good roads promoters in the state. He was one of the pioneers in the good roads movement in Michigan, firmly believing that without good roads rural communities can not develop and prosper, and without prosperous rural districts the state would soon find itself in a bad way.

Aside from these duties as legislator and secretary of state Mr. Martindale has served five years as chairman of the State Board of Auditors, and also served on the Public Domain Commission and the State Park Commission. Wherever his services in a public capacity have been sought his energy and perseverance have been utilized to inaugurate a thorough business system and accomplish the best possible results for the state, just as he applies thorough business system to his farm and gains results.

Through all the years of this public work the farm has always been given the careful supervision of a business farmer. He has always taken a keen



Twin Silos on the Martindale Farm were Built First. A Barn to Conform to This Big Improvement will be Built Later.



Mr. Martindale and His Niece. Notice the Old-fashioned Hollyhocks by the Window, and the Fruit Tree at the Corner of the House, Which Also Gives Shade.

interest in bettering farm conditions for those less able than himself to enjoy the full fruits of a highly successful farming enterprise. For this reason and for personal business reasons he became one of the first members of the Michigan State Farm Bureau, a business organization of farmers which ranks second in the United States in the American Farm Bureau Federation. He believes that the farmer should be brought closer to the consumer in the sale of farm products, a system of marketing that would give the farmer more for what he produces and reduce the cost of living to the consumer, which is the objective of the Michigan State Farm Bureau. So he is very active in Farm Bureau matters and his advice is considered most valuable in that organization although he is more given to listening to advice than giving it, and he follows the rules and regulations of the Bureau down to the finest detail in marketing.

The wool from his sheep is in the great Michigan wool pool; his twenty-five or thirty acres of potatoes go to market through the Michigan Potato Growers' Exchange, everything is marketed collectively where the Farm Bureau has a marketing organization.

The career of Mr. Martindale is very similar to that of the late Gov. Mount of Indiana, a farmer who progressed

along much the same lines until he was elevated to the highest position the state had to offer. Gov. Mount served the state of Indiana well and in a most crucial period as governor. The people loved and trusted him because he had been found trustworthy, a trait peculiarly inculcated in a man who tills the soil.

Is there an analogy in the lives of these two great farmers, great in farming and public service? The approaching primary election will tell, for Mr. Martindale has become a candidate for governor at the end of a long, successful public career, and is ripened for the highest executive capacity by the experience of faithful service to the state, just as "Jimmy" Mount fitted himself for the efficient administration which characterized his tenure of the governor's office.

It is a coincidence out of the ordinary that two neighboring states should have two sturdy farmers each pursuing the same calling in private and public life, practicing the same mode of righteous living, moving steadily onward in service to the commonwealth. And, should Mr. Martindale be nominated for governor of Michigan the coincidence would be still more striking—indeed two private and public careers of two great men would be almost identical.

POLITICAL TIPS TO FARMERS

ALTHOUGH the Michigan State Farm Bureau is not in politics, it has something to say on the subject, and it is something that is of as much interest to the urban population of the state as it is to the 75,000 farmers who are members of the bureau. The state has been circularized and the farmers urged not to neglect voting at the August primaries. The advice follows:

"Presidential, congressional and general state election is just ahead of us and the results of it are bound to have a vital influence on national and state policies for some time to come. Numerous candidates are in the field—some worthwhile and some not so good. It is not the purpose of the Farm Bureau, with its thousands of members, to interest itself especially in drawing lines between these candidates, as their own constituents, if they exercise their privilege of the ballot, and with a knowledge of their personalities and qualifications, can do this better than the Farm Bureau or any other organization.

"But unless these aforesaid constituents are keenly alive to their duty, the Farm Bureau will be seriously handicapped in its attempts, along whatever lines they may be, to secure enactment of amendatory or new legislation that will be of agricultural benefit or worthwhile from the viewpoint of the common weal.

"The results of the election will be largely indicated at the state primaries, which are now just a month off, and with this fact in mind, it is the advice of the Farm Bureau of Michigan that every effort possible be made to have the thousands of farmers of the state go to the polls en masse and cast an intelligent vote based on their own good judgment."

Production of corn in the United States is estimated at 3,003,322,000 bushels, as compared with 2,778,903,000 forecasted from July 1 condition. 2,917,450,000 produced in 1919 and a 5-year average (1914-18) of 2,760,484,000 bushels.

Good Judgment leads thousands of housewives to serve Grape-Nuts

in place of foods that require hours of drudgery in a hot kitchen. *Needs No Sugar* Comes ready to eat from the package.

"There's a Reason" for Grape-Nuts

DOCK COAL

CENTRAL WEST COAL CO.

MENOMINEE, MICHIGAN

WE are keenly interested in the development of the agricultural and grazing opportunities of Cloverland.

What helps any part of this Empire of the North helps it all.

Calumet & Hecla Mining Company

JAMES MacNAUGHTON

Vice-president and General Manager

CALUMET MICHIGAN

A New Standard of Tire Service

THE every day performance of AMAZON Tires is setting a new standard in tire service.

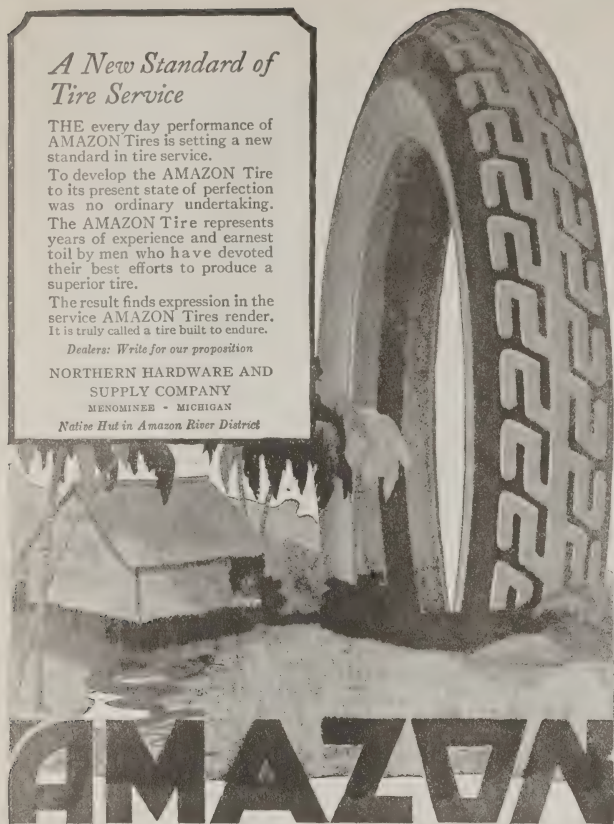
To develop the AMAZON Tire to its present state of perfection was no ordinary undertaking. The AMAZON Tire represents years of experience and earnest toil by men who have devoted their best efforts to produce a superior tire.

The result finds expression in the service AMAZON Tires render. It is truly called a tire built to endure.

Dealers: Write for our proposition

NORTHERN HARDWARE AND
SUPPLY COMPANY
MENOMINEE - MICHIGAN

Native Hut in Amazon River District



A State Program to Aid Settlers

By HON. J. S. ARNESON

Commissioner of Immigration for Minnesota

EVERY large department store employs a floorwalker to direct customers to the proper department and to see that the customer gets what he or she wants. This is done, of course, on the theory that the satisfied customer will return and bring others with him.

That is about the kind of service the State Immigration Commissioner would like to render in the state settlement program. I would like to bring to the attention of every new settler in Minnesota, a slogan used in many business houses which reads: "If you are satisfied, tell others, if not, tell us."

In the more unsettled portions of the state, the new settler must, first of all, have good roads. He must be assisted in his land clearing problems, he must have schools and he must be assured of a decent market for his produce. Right here I would like to preach a sermon on good roads. The newer communities will flourish and prosper in exact accordance with the quality and extent of their road-building program. Lucky, indeed, is that community which has a few men who are "bugs" on the question of road-building. You could no more hold back the settlement of such territory than you could dam the Niagara.

Now, the Immigration Department cannot build roads, but by means of publicity and agitation, it means to co-operate with state and local authorities to bring good roads to the front door of every settler.

The splendid work being done by the College of Agriculture and its experiment stations is of inestimable value to the farmer of the state, and

our new settlers should avail themselves of this service before putting a kernel of seed into the ground.

This department is exceedingly anxious to bring about better conditions for new settlers by urging a harmony of service between local and state organizations which have to do with roads, drainage, schools, agriculture, etc. The market problem calls for our most serious and thoughtful consideration if we are to have a contented, prosperous farming population, and I am glad to say some of our best minds are working on a solution.



Hon. J. S. Arneson, Commissioner of Immigration for Minnesota.

It is high time the farmer has control of his own markets, and this department is in full sympathy with his efforts to retain some of the profits now going to the middle man.

I will add that Minnesota's Department of Agriculture is doing some very intelligent work, which will, no doubt, result in much needed legislation next winter. We will co-operate with individuals and commercial bodies in

every section of the state to build up a community spirit which will make welcome and extend a friendly, neighborly hand to every settler. Minnesota is a truly wonderful state abounding in opportunity, blessed with natural advantages to be found nowhere else on the American continent. We have here room and a welcome for farmers, merchants, manufacturers and pleasure seekers, and I feel certain that if that great stream of people passing westward in search of a place to locate and those who come back every day from the arid sections of the west, could only be induced to "See Minnesota First," our population would double in the next ten years.

A Library in Remote Rural Districts

(Continued from page 8)

customers when we arrived to take an active part in the installation, but directed us to the reading room and told us where to place the book cases.

The cases were opened and set up during a period of watchful waiting by the crowd of mill hands that had deserted the barber shop and pressed into the little reading room. The sign of a woman appeared to awe them, and they timidly croached along the walls, while several books were laid upon the table for their inspection. Then I went to supper, and the specter having disappeared, the men evidently hastened to help themselves to the books, for when I returned after supper every man had a book, and perhaps every book in the case had been taken out and inspected. The men had plucked up courage and some were even bold enough to ask for certain books. Robinson Crusoe was requested three times. The event turned out to be a very pleasant and enjoyable evening, and 30 books were taken home by the men alone before I left.

One of our smaller stations is located in a typical country store, owned by a pioneer. Thirty years ago he bought a farm, then miles from any town, but which is now highly improved and he keeps the only store. I walked nearly a mile from the railroad and found the proprietor recovering from a sprained shoulder, the result of a fall from the roof of his store. Together we re-

turned to the box car station with an old rickety wheelbarrow, and transported the books to the store. The arrival and subsequent opening of the box was hailed with delight by the company of children that had assembled to witness the establishment of the library. They listened with almost extended ears to the explanation of the purpose of the library, and did not miss a word about the proper treatment of books. The lecture had scarcely ended when a little voice piped up, "Gramp, gimme this one, I can't wait any longer."

Scattered along the shores of Green Bay are numerous fishing villages, once scenes of great activity, but now almost deserted. Much pleasure was derived from the visit to this district, and from the remarks of the children who thoroughly enjoy the best books for boys and girls. In these hamlets they had not been spoiled for good reading by movie thrillers and trashy literature. One of the subsequent incidents in this district is illustrative. A Swedish boy of perhaps eight or ten years had returned to the library the large, fat, red edition of Scott's "Ivanhoe," and wondering if he had really read it, the librarian in charge asked:

"Well, what do you think of it?"

"Gee, whiz, but it's good," replied

(Continued on page 45)

RED CROWN Gasoline line is made especially for automobiles. It will deliver all the power your engine is capable of developing. It starts quickly, it accelerates smoothly, it will run your car at the least cost per mile, and it is easily procurable everywhere you go.

Standard Oil Company
(Indiana)
Chicago, Ill.

Redeem Non-agricultural State Lands

By HON. GEORGE L. LUSK

Secretary Public Domain Commission of Michigan

THE Public Domain Commission of the State of Michigan has just completed its annual inspection of the forests under administration. Every year the commission aims to make a visit and personal examination to a number of the state forests, and note the progress made in the problem of reforestation. The trip this year took them to the state property in Alpena, Montmorency, Presque Isle, Oscoda and Emmet Counties. The other forests under development were visited last year. It is not an easy task to reach the various properties, because modern highways are quite unknown in the cut-over land areas, and railroads are far removed in most cases. It is, therefore, somewhat of a hardship to make the journey with even a modern automobile, but the commissioners appreciate the necessity of a personal examination and realize the growing importance of these problems in the future of Michigan.

Three hundred and fifty thousand acres of state lands have been set aside thus far for forest propagation, and about half of this area is now under administration, which means that fire lines are run, towers erected, planting performed under the direction of a custodian or manager with help and equipment upon the premises to systematically carry forward the work. There remains fully three hundred thousand acres awaiting treatment in the same manner, if the policy of reforestation is to become a recognized policy in the reclamation of the "bankrupt" lands that come into possession of the Public Domain Commission through the process of forfeiture for taxes.

Reforestation is a debatable question with many; they cannot see the wisdom of planting a tree that will not at-

tain maturity for fifty years. While the forests of the past contributed in full measure to the progress of the present day, the doubters have no concern for the future. The question of "What shall be done with the idle land?" is of no consequence to them. The state is already possessed of a large acreage, the area will grow larger, land unfit for any use, except what nature has already proven—forestry. What Michigan's policy has already accomplished is one of the most attractive object lessons in this country.

The non-agricultural lands that become a liability upon the state can only be made an asset through the process of reforestation. England, France and other countries have set the example, and learned the lesson in reforestation, and shown indisputable results.

This is one of the big questions before Michigan. It involves the paramount issue of forest fire protection (the commission voted to ask for \$250,000 fire fighting fund), the propagation and protection of wild life, the reclamation of non-productive lands, the growing of needed forest products, the building of communities, in fact, results for the general good of all the people of a great state.

To successfully perform the big job that lies before the Public Domain Commission along this one line alone, will require an enlightened public opinion, a more liberal financial appreciation by the Legislature, and encouragement by all forward-looking citizens. A penny wise and pound foolish policy can only result in disappointment, disaster and shame. Michigan is waking up and will become fully aroused in due time as to the proper utilization of the vast areas of uncultivated lands.

McCartney National Bank

Green Bay, Wis.

Capital and Surplus, \$600,000.00

We are deeply interested in the development of Northern Wisconsin along commercial, manufacturing and agricultural lines. Write or call and see us.

The Only Trust Company In Cloverland

Superior Trust Company

HANCOCK, MICHIGAN

DIRECTORS

THOS. W. ARMSTRONG
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THE SUPERIOR TRUST COMPANY

is authorized to act as:

Executor and Trustee Under Wills.
Administrator of Estates.
Guardian of Minor Children, Insane and Mentally Incompetent Persons.
Assignee and Receiver of Insolvent Estates.
Agent for the Registration of Certificates and Transfer of Bonds and Stocks, and the Payment of Coupons, Interest and Dividends.
Trustee for the Execution of a Trust of Any Nature.

Correspondence Solicited

Out-of-Town Remittances from Depositors

can be sent to this bank by mail. Checks, drafts and money orders received in business transactions or through the mail can be endorsed

**"For Deposit Only,
John N. Smith"**

placed in an envelope, addressed to this bank, and dropped in the mail box or handed to the R. F. D. man with the rest of your letters.

We'll credit the amount to your account and return a receipt promptly. Save time and expense! Bank-by-mail.

First National Bank

MARQUETTE, MICHIGAN

DESIGNATED UNITED STATES DEPOSITORY

Organized January 22, 1864

Capital, Surplus and Undivided Profits \$300,000

TO THE LAND OWNERS OF WISCONSIN THE HOME LANDS

The Home Lands Inc. and the Home Lands Agency and Loan Corporation are two sister corporations organized for the purpose of colonizing and liquidating the interests which the Holt Lumber Company, Oconto Company and the Menominee Bay Shore Lumber Company had and in part still have in a large tract of land in the counties of

Oconto and Forest, Wisconsin.

The plan adopted for the colonization of these land holdings was laid by A. L. Mordt, the Manager of the two corporations. It is the most complete and fundamentally correct colonization plan of the United States today. The carrying out of this plan which is known as the "Home Land

The Preparatory Work of the Home Lands Inc.

(a) It prepares the land for the market. A superintendent of construction and a graduate agriculturist with practical soil experience, assisted by a competent staff, map your land and group it into sales units so as to make every acre salable.

(b) It establishes a road system so as to make each sales unit accessible by wagon road, superintending the construction of these roads and using station contract workers as much as possible, co-operating closely with the town, county and state road commissioners.

(c) Where there are no social centers, villages, towns or cities in the district, new social centers, towns and villages are located so as to make the settling of the land practicable. A community house is built in each social center for the purpose of promoting the social welfare of the settlements. A supply station or a general store is also arranged for, while sufficient acres are set aside so as to provide sites for creameries, cheese factories, churches and other industrial as well as social enterprises necessary to make the development of the district complete.

(d) In appraising the land all the advantages offered under the Home Lands Credit System are considered and the land is sold at its full market value. As the land develops and the value increases the owners get the full benefit. The two Home Lands corporations do not participate in the profits of the land sold at the advanced price.

(e) It submits maps, reports and prices to land owners for final approval. When these are accepted by the land owners the sales campaign begins.

The cost of this work is paid by the land owner as the work progresses, quarterly statements and requisitions being rendered.

(f) It reserves all water power and lake properties for the owners and arranges for special development of such properties. Provisions are made, however, for a few acres of shore line along the lakes for settlers' picnic grounds.

(g) The Home Lands Inc. charges only 10% of such cost as its fee for superintending the work.

The Work of the Home Lands Agency and Loan Corporation

Due to the fact that the statutes in some states do not allow corporations to sell land or real estate and superintend such work as is necessary under our Home Lands Credit Plan, it was necessary to organize a sales organization separate and apart from Home Lands Inc., our construction corporation. Therefore, the Home Lands Agency and Loan Corporation was organized to take full charge of the sales organization.

The Home Lands Agency and Loan Corporation maintains headquarters in Chicago and branch offices in such other states that can reasonably be expected to furnish set-

tlers for the cloverlands in Wisconsin, Michigan and Minnesota. This organization covers at the present time Illinois, Wisconsin, Indiana, Ohio, Southern Michigan, Iowa, Minnesota and all the inter-mountain states.

The organization can easily be extended into Pennsylvania and all the Eastern states, if the large land owners of Michigan, Wisconsin and Minnesota should avail themselves of our plan and service and make it necessary to increase the immigration movement to the millions of idle acres awaiting the settlers in these three states.

Our Western department, as well as our Ohio department, are being developed so as to take care of the thousands of acres of land which are too rough for agricultural development and therefore fit only for sheep and cattle ranches.

The Home Lands Agency and Loan Corporation has a fully trained sales force under the direct management of A. L. Mordt. The members of this force have been in close contact with the agricultural department of Wisconsin and have reached a point of salesmanship where they realize that in modern salesmanship truth is better than fiction.

The close co-operation between the Agricultural Department of Wisconsin and our sales organization and our strict adherence to facts, have established us firmly in the confidence of the land buying public, and it can be safely said that there is at the present time no other land selling organization that can compete with us in this respect. Our business methods do not involve any secrets. The public is taken into our full confidence and knows exactly how we do business and how we make our profits.

Our sales force headed by district superintendents would be ready on short notice to bring actual settlers into any community which is ready for colonization, providing the land and climatic conditions make a farm settlement possible and profitable.

The sales organization of the Home Lands Agency and Loan Corporation is developed so that it can take care of several different communities at the same time, as there is no single district large enough to make it possible for us to take care of the thousands of families who are ready to move under our plan into such a district.

In fact the climax of success in our work can be reached only if we can get large enough territory to organize several communities at the same time.

Our sales organization carries its sales campaign to the homes of the prospects. But we have abandoned the old methods of "herding" the prospect, preventing him from getting true information about the country. We control our business by throwing the district we represent open to everybody, referring our prospects to the State Agricultural departments and the local county agents, letting prospective buyers come and go as they please, as free agents, rarely losing a buyer, simply due to the fact that there is at all times superabundant evidence

of open and square dealing.

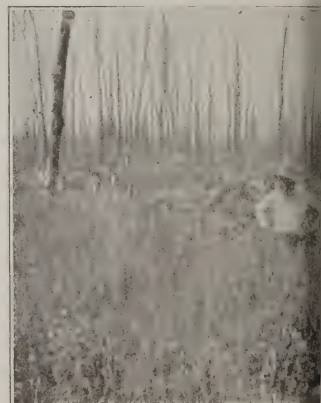
The cost of the sales campaign is divided proportionally between the owners of the land sold. The value of the properties as well as the number of acres are considered. Thus, where no land is sold no expenses will be incurred. In other words, until the land is put on the market and actually sold the owner of a tract of land which is being prepared for the market does not partake in the expense of the Home Lands Agency & Loan Corporation.

The Work of the Home Lands Inc. After Actual Settlers Arrive: Our Settlers' Sales Plan

Based on an eighty-acre tract of agricultural land.

1. Cash payment, \$700.
2. Annual payment of taxes by the settler.
3. Suspension of further payments on principal and interest for five years.
4. Payment of accumulated interest for five years at the end of five years, not compounded.
5. Balance of purchase price to be paid in 6, 7, 8, 9 and 10 years.
6. Extension of credit to settler for building material for a two-room house and sufficient assistance from experienced carpenters to have the house constructed well and avoid loss of material because of inexperience. The settler must always invest his own labor.
7. The adding of the cost of material and labor to purchase price of land, drawing interest at the rate of six per cent per annum, and to be paid in the same way as original principal and interest. (See Nos. 4 and 5).
8. The clearing by the settler of three acres and one-half of brush every year beginning the first year; and three and one-half acres of stumps every year beginning the second year.
9. All payments may be made on or before due.
10. All performances are secured by the land contract.
11. After five years the owners have the privilege to take up the

BEFORE



Brushing cut-over land in the Moun



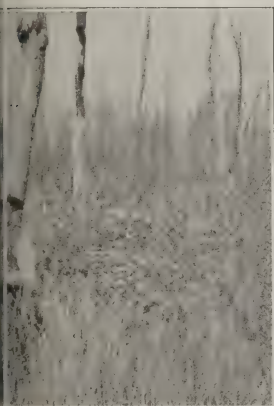
After land has been cleared an opportunity

WISCONSIN, MICHIGAN AND MINNESOTA CREDIT SALES PLAN

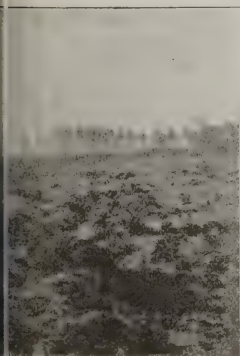
dit System" met with immediate success. The Home Lands Inc. and the Home Lands Agency & Loan Corporation offer this plan to the land holders of Wisconsin, Michigan and Minnesota. They also offer their services in connection with the carrying out of the plan. The two Home Lands Corporations are not

speculating in land. They only sell service. If you buy this service the Home Lands Inc. becomes your superintendent of your land department in the north, while the Home Lands Agency and Loan Corporation becomes your Sales superintendent in the territory from which it gets settlers for your land.

AFTER



district—typical cut-over scene.



er immediately has cash crop.

us set by the usual chattel mortgage legislation. and dynamite and team hire are paid for when crops are

onal Benefits Offered Through the Home Lands Plan charter of the Home Lands Inc. is wide and makes it possible corporation to do business along all lines except banking. thus able to help all settlers to get supplies at wholesale

contract and give a warranty deed to the settler, taking a first mortgage for all deferred payments against the land. This may be desirable as the mortgage will be guaranteed and marketable at par in five years.

Additional Credit

is offered the settler to purchase stock when his farm is developed sufficiently to justify such purchase.

Credit is also extended to the settler for the purpose of purchasing dynamite provided the dynamite is used for the development of the land purchased.

Credit is also extended for the purpose of purchasing seed, for the hiring of teams and heavy implements and machinery needed during the first years of development but too expensive to purchase for the settler with small capital.

Security

The land owner has the following securities:

1. The land under the terms of the contract.
2. The equity in the land of the settlers under the terms of a mortgage signed by the settler.
3. The chattels and the crops under the terms of a chattel mortgage.
4. Insurance policies covering all insurable improvements and chattels purchased under our credit system.

The credit for chattels, team hire and seed to be extended for such limited

prices plus freight and ten per cent for handling charge. This covers lumber, groceries, dry goods, hardware, implements, seed and all other things which the new settler must have.

This branch of our service increases the chances for our settlers greatly, as it saves them money which can be invested in stock and farming improvements, thus accelerating the development of the farm.

We also organize our settlers into cooperative land clearing groups under our management, to speed up the development of the land.

There's no spirit of charity in our organization. We charge our settlers for our services sufficiently to cover the cost and permit reasonable profit and interest if the service is not paid for at once.

Social Work

The Home Lands Plan promotes also the development of the social life. It calls for the organization of the settlers into a social commercial association.

Farm Institute work in charge of the agriculturist is arranged for.

A day is dedicated to an annual settlers' picnic held under the auspices of the Home Lands Inc.

The community house at the social center is used as the nucleus of all our social work.

Marketing

As our agriculturist assists our settlers in purchasing stock to avoid losses because of disease and poor grade, so does the organization, through its agriculturist, assist the farmers in marketing their crops. The Home Lands Agency and Loan Corporation helps materially in this work by advertising products of the settlers who have produced more than the local market can absorb. Such advertisements are inserted free of charge in our literature as well as our current advertisements in daily, weekly and monthly publications.

It has been our experience that such advertisements reflect the best results for our land sales department.

The same credit system is used if larger tracts are bought, the settler getting credit in proportion to the payments and purchase made.

The Home Lands Inc. as well as the Home Lands Credit and Loan Corporation both serve as collection agencies for the owners, rendering quarterly, semi-annual and annual statements as may be desired.

No colonization is effected on the basis of any sect or religion nor do we colonize any special nationality. We believe in American communities and refuse to allow the establishment of any other kind.

Our organization will market your land, collect, reduce your tax burden, and change dead property into live profit bearing investments. And remember. The service you offer the settlers is not done for nothing. We charge reasonable prices allowing fair profits to the owners.

Our Service Fee

We charge the owners \$1.50 per acre on all sales made.

We extend a cordial invitation to you to get in touch with us at once. Our sales force is ready to take over more work immediately. Remember this sales force is the best sales force in the field today, a statement which may be taken without discount. We want five-six communities. Mr. A. L. Moridt will be glad to make appointments to discuss further details.

If action is taken quickly we could begin to move accessible tracts of land in September, 1920, and prepare considerable acreage for our spring campaign before the winter arrives.

For references we refer you to the Upper Peninsula Development Bureau at Marquette, Michigan; George J. Farnsworth, President of Bay de Noquet Lumber Company, 817 Railway Exchange Bldg., Chicago, Ill., and the Continental and Commercial Bank, of Chicago, Ill.

**HOME LANDS INC.,
MOUNTAIN, WISC.**

**HOME LANDS AGENCY AND LOAN CORPORATION
CHICAGO, ILL.**

Address: **A. L. MORDT, General Manager,
Rooms 501-506 Manhattan Building,
431 So. Dearborn Street,
CHICAGO, ILL.**



Grand Hotel, Mackinac Island, Mich.

Mackinac Island

The
Summer Resort
of America



The art work of nature, Indian legend, and panoramic scenes that have made history in time of war and in time of peace all blend in harmonious welcome to tourists entering Cloverland through the southeast gateway, or bid adieu to the traveler after a sojourn at the wonderful Mackinac Island.

The island is justly famed for its scenery. The heights command views of sea and shore, ever changing with the varying lights and shades of the hours and the movements of passing ships. Well kept roads—thirty miles of them—lead in various directions from the village, through the woods, amid curious rock formations, now along the edge of the bluff with vistas of the lake, and again to some open outlook, whence the panorama is bounded only by the limitations of vision. There are glens and ravines innumerable; open spaces which were the ancient gardens of the Indians; and delectable parks, whose clumps of shrubs and trees are so effectively arranged that one at first thought credits the artistic effect to the skill of the landscape artist rather than to the caprice of nature.

WRITE OR WIRE FOR RESERVATIONS

GRAND HOTEL COMPANY

MACKINAC ISLAND, MICH.

LOGAN BALLARD, President CHARLES A. HOLDEN, General Manager



These Strong Cloverland Banks Are Ready and Willing to Give Every Possible Cooperation to New-comers. They invite Correspondence.

First National Bank of Calumet

Calumet, Michigan

Capital \$200,000.00

CALL IN AND SEE US
We are always pleased to serve you

Officers: John D. Cuddihy, Pres.; Edward Ulseth, Vice Pres.; Edward F. Cuddihy, Cashier; Daniel C. Harrington, Asst. Cashier; Pierce Roberts, Asst. Cashier

First National Bank of Menominee

Menominee, Michigan

Resources Over \$2,000,000.00
Oldest and largest Bank in Menominee County and under same management for 32 years
Depository for United States and State of Michigan

Officers: G. A. Biesch, Pres.; John Hees, Vice Pres.; C. W. Gram, Cashier; A. J. Klumb, Asst. Cashier

First National Bank of Bessemer

Bessemer, Michigan

Capital, Surplus and Profits,
\$150,000.00

Oldest Bank in
Gogebic County

The Lumbermen's National Bank

Menominee, Michigan

One of the Oldest and Strongest
Banks in Cloverland

Officers: Warren R. Carpenter, Pres.; Wm. Webb Harmon, Cashier

ESCANABA

is the leading city in Cloverland

The leading bank in that city is the

Escanaba National Bank

Correspondence invited

Commercial Bank of Menominee

Menominee, Michigan

"The Bank of the People"

Invites correspondence from prospective settlers. You can bank by mail with us

The First National Bank of Alger County

Munising, Michigan

Officers: William G. Mather, Pres.; G. Sherman Collins, Vice Pres. and Cashier; John N. Korpela, Asst. Cashier

Houghton National Bank

Houghton, Michigan

United States Depository
Capital \$200,000
Surplus \$200,000
Undivided Earnings \$250,000

Officers: J. H. Rice, Pres.; W. D. Calverley, Vice Pres.; A. N. Baudin, Vice Pres.; C. H. Primodig, Cashier; R. T. Bennellack, Asst. Cashier; Edward Romp, Asst. Cashier; F. C. Stoyke, Asst. Cashier

The State Bank of Ewen

Ewen, Michigan

Officers: L. Anderson, Pres.; J. S. Weldman, Jr., Vice Pres.; E. J. Humphrey, Vice Pres.; A. M. Anderson, Cashier. Directors: L. Anderson, Calderwood, Mich.; J. S. Weldman, Jr., Trout Creek; E. J. Humphrey, Ewen; J. N. Howlett, Bruce Crossing; J. P. Fosselson, Ewen; Nugent Dodds, Ewen; A. M. Anderson, Ewen.

The Newberry State Bank

Newberry, Michigan

Capital, \$30,000.00
Surplus, \$6,000.00

A General Banking Business. Commercial and Savings Departments.
3% Interest paid on Savings Deposits

Officers and Directors: F. P. Bohn, Pres.; W. G. Fritz, Vice Pres.; L. H. Reed, Vice Pres.; E. M. Chamberlain, Cashier; E. L. Fritz, Andrew Weston, J. C. Foster, Matt Surrell

First National Bank of Iron River

Iron River, Michigan

Capital, \$50,000.00
Surplus, \$20,000.00

We invite letters of inquiry regarding Iron County

Officers: Ellsworth S. Coe, Pres.; Wm. J. Richards, Vice Pres.; A. J. Pohland, Cashier

First National Bank of Sault Ste. Marie

Sault Ste. Marie, Michigan

Since 1886 this strong bank has been interested in the growth and development of Chippewa County. Correspondence invited

Officers: R. G. Ferguson, Pres.; Otto Fowles, Vice Pres.; Chase S. Osborn, Vice Pres.; E. H. Mead, Vice Pres.; Fred S. Case, Vice Pres. and Cashier

First National Bank of Marquette

Marquette, Michigan

Over \$2,000,000.00 Resources

Officers: Louis G. Kaufman, Pres.; Edward S. Bice, Vice Pres.; Charles L. Brainerd, Cashier

First National Bank of St. Ignace

St. Ignace, Michigan

The oldest and largest Bank in the only National Bank in Mackinac County

Your business inquiries will receive prompt and courteous attention
Officers: O. W. Johnson, Pres.; E. H. Hotchkiss, Vice Pres. and Cashier

Marquette National Bank

Marquette, Michigan

Capital and Profits, \$160,000.00
United States Depository
We invite correspondence

Officers and Directors: J. M. Longyear, Pres.; D. W. Powell, Vice Pres.; Cass H. Schaffer, Vice Pres.; F. J. Jennison, Cashier; H. R. Fox, Asst. Cashier; E. A. Brown, Asst. Cashier; Daniel W. Powell, Austin Farrell, Chas. H. Schaffer, Frank J. Jennison, A. F. Roberts, R. P. Bronson, E. L. Pearce, J. E. Sherman, J. D. Reynolds, John M. Longyear

The Marquette County Savings Bank

Marquette, Michigan

Officers and Directors: H. L. Kaufman, Pres.; S. R. Kaufman, Vice Pres.; G. A. Carlson, Cashier; O. E. Barber, Asst. Cashier; E. J. Hudson, E. S. Bice, Louis G. Kaufman, Chairman Advisory Committee

Co-operation among the farmers has proven exceptionally profitable.

We have over 20,000 members, who are co-operating in Saving. Today we have over \$6,880,000.00 making profits for them.

The largest Building and Loan Association in Michigan.

We have to offer to members at this time our prepaid dividend stock on which we send check for interest at the rate of five percent every three months. The dividend comes regularly—no fuss or bother.

Any time you want any part or the whole of your money—it can be withdrawn.

Send in your check NOW and receive your Dividend, October 1st.

\$80.50—a share pays \$1.00 quarterly.
\$805.00—10 shares pays \$10.00 quarterly.
\$8050.00—100 shares pays \$100 quarterly.

Detroit & Northern Michigan Building & Loan Association
HANCOCK, MICH.
Under State Supervision
Authorized Capital, \$50,000,000.00

The First National Bank of DULUTH

At the Center of Cloverland

CAPITAL, SURPLUS and PROFITS
\$3,250,000

THE development and progress of Northeastern Minnesota has for 38 years been the interest of this bank. In the future of this community and in the success of its people we have a vital concern

Talk your problems over with us or consult us by mail.

First National Bank of Iron Mountain
Iron Mountain, Michigan
Resources Over \$1,600,000

Officers:
E. F. Brown, President; J. C. Kimberley, Vice-President; W. J. Cudlip, Second Vice-President; F. J. Oliver, Cashier; Leo H. Mortensen, Assistant Cashier; W. W. Franzen, Assistant Cashier.

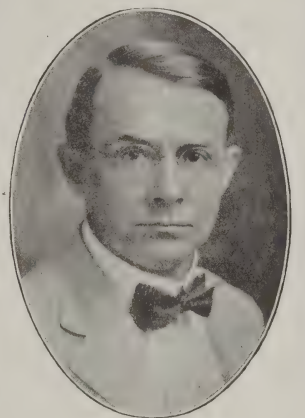
Directors:
E. F. Brown, J. C. Kimberley, W. H. Scandling, A. Bjorkman, W. J. Cudlip, R. W. Pierce, Jr., R. C. Brown, G. O. Fugere.

A Settlers' Colony Picnic in Wisconsin

(Continued from page 4)

with the difference that all are satisfied.

It was within keeping of the Mordt policy that a community spirit should be inculcated in the settlers and that this spirit should be kept alive, that the company gave their settlers a picnic this summer to get better acquainted with each other and celebrate their coming into the new country. The picnic was held at a beautiful land ten miles from Mountain, July 24. It was a tremendous success from every angle, and will be an annual affair at the expense of the company until all the settlers pay for their land. By that time it will have become an institution in the Mountain community and will no doubt be a fixed thing for all the people in that district.



A. L. Mordt, founder of the Home Lands idea of settlement which has been so highly successful.

The company spared no effort or expense in making this picnic a most enjoyable event. Long tables were built in the woods for the convenience of those who preferred to eat off a table instead of the ground. A dancing platform, large enough to accommodate a hundred or more couples was built, and the Oconto band hired to come a distance of sixty miles overland to play for the day and night. A speakers' stand was erected and benches provided for only a short speaking program. A program of amusements filled most of the day, and substantial cash prizes and valuable gifts were awarded the winners. The kiddies were well taken care of with boxes of pop corn, cracker-jack, bags of peanuts and candy, and an American flag.

A portable electric light plant was even transported to the grounds, and when night came the woods was aglow with sparkling incandescents, and the dancing floor was lighted as if by day.

The settlers were called for by agents of the company in automobiles,

(Continued on page 44)

W. P. WAGNER, Pres. H. S. ELDRED, V.P.
GEO. D. NAU, V.P. H. P. KLAUS, Cashier
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When You Have A Bank Account—

Your self-confidence increases;
You become acquainted with men who can help you get ahead;
You are more respected by your fellows;
You learn that saving is just as important as earning;
You have taken the first step toward independence.

Many bank depositors who now have large savings accounts started with \$1.
Your local banker will welcome your account.


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Total Resources, December 31st, 1919 Over \$20,000,000.00



CATTLE and Sheep Men locating in this vicinity will find us both able and willing to assist them.

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"THE BANK FOR YOU"

SAULT STE. MARIE, MICH.

OUR Certificates of Deposit afford a convenient and secure manner of investing any desired amount—with the principal always available.

CITY NATIONAL BANK
of Duluth



Woman and the Home

By HARRIET L. HARLOW



HOME DRYING FRUITS and VEGETABLES

WITH sugar so high and scarce as it was during war times why not dry our fruits and vegetables this fall. We learned to economize a few years ago. Let us continue this good work. Home drying isn't hard work and years ago our grandmothers could tell us how they dried all fruits and vegetables. Festoons of drying fruits and vegetables made the old-fashioned farmhouse kitchen very picturesque. And the odors. How we would love them. They never thought of the fly in those days. But today we have methods of modern drying.

A very satisfactory dryer may be made at home. Plans for it may be had free by writing to the United States Department of Agriculture, Washington, D. C., and asking for "Farmers'" Bulletin 984. This dryer may be used over a gas burner, oil stove or range. Many people today use the old-fashioned range for drying fruit and vegetables, starting the fruits in the oven, stirring occasionally and finishing the drying by placing fruit in pans on shelf above stove.

Others use the sun method of placing fruits in trays out on porches or low roofs. But let us return to the modern way with a dryer fitted out with five wire trays.

KINDS OF FRUITS AND VEGETABLES TO DRY

Sweet corn, partly ripened lima beans, tomatoes, string beans, well-matured peas, squash, pumpkins, apples, peaches, quinces, cherries, prunes, apricots, pears, black-cap raspberries, blueberries and some blackberries may be dried for home use.

Only absolutely fresh, tender and perfectly cleaned material should be used. This is especially true of vegetables and also applies to apples. In cleansing vegetables for drying it is a good plan to use a vegetable brush.

After material has been cleansed it should be peeled, if necessary, then sliced or shredded, before drying, to a thickness of one-eighth to one-quarter of an inch.



The Old-fashioned Method of Drying in the Sun. A Cheap and Easy Way When Weather Conditions Are Right, and the Dried Product Retains Its Delicious Flavor.

The slicing process may be hastened by use of the rotary slicer shown here.

Any decayed parts or insect-injured portions should be cut out. Only sound, well-flavored fruits should be used. If steel knives are used for peeling or paring see that they are clean when you begin; otherwise they will discolor fruit.

Some people think blanching the fruits or vegetables necessary. To do

this it is dipped into boiling water, from 2 to 20 minutes, depending upon fruit or vegetable. This is supposed to fix the color and preserve the flavor. It should then be dipped immediately into cold water for a few seconds.

A rather uniform temperature, preferably 110 degrees to 150 degrees F. is needed for drying fruits and vegetables.

After foodstuffs are prepared they are spread on the trays of the dryer

in thin layers, not over one to one one-half inches deep, depending upon the kind of the material. A temperature of 110 degrees F. is used at first in order that the outer surface of the product can become hardened. Then too, we do not lose the interior moisture with the high temperature. One can best determine length and temperature of drying by experience. It is hard to give general directions, although I can give a chart used by experience, if one wants it.

The various factors that influence the period of drying are:

1. The size of the pieces of the material being dried.
2. The temperature.
3. The amount of moisture contained in material.
4. The rate of air circulation.

Vegetables dry more quickly than fruits. Properly dried vegetables will be slightly brittle when removed from dryer. One should never be able to press water from vegetable if dried.

Fruits, however, should not be brittle, but leathery, and should not stick to one another when pressed together.

THE STORING AWAY

Dried fruits and vegetables must be stored in a dry place and precaution taken that no mice or insects get at them. The best containers for storing them are glass, tin, fiber containers or paraffined boxes or bags. One must also examine these stored goods occasionally and, if insects are found, the material should be spread out in thin layers and exposed to the hot sun and re-packed.

TO DRY CORN

Corn is one of the easiest of fruits, or vegetables, to dry and I believe more corn and apples are dried than any other products.

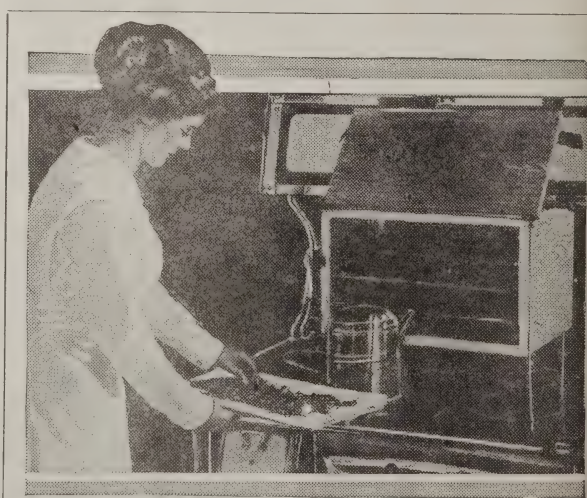
Cook the corn in boiling water 2 to 5 minutes, long enough to set the milk. Cut the kernels from the cob with a sharp knife, taking care not to cut off pieces of the cob.

Spread very thin on trays and place in dryer, stirring occasionally until

(Continued on page 30)



A Manufactured Dryer With Capacity for Five Trays, Which May Be Used Over Range, Gas or Oil Stove. It is Not Expensive and is Very Durable.



A Home-made Dryer That Answers All Purposes. Not so Large as the Other

Woman and the Home

OUR SEWING CHAT



Figure 1

Figure 2

At the turn of another season the fall fashion forecast is included among the interesting topics of the day. What will the women wear? The length and width of the garments usually are a sure tip on the trend of the styles. Short and somewhat fuller pleated to the latest designs in general. The accordion or pleated skirt becomes popular again, and with the of the loose blouses, one is ever so good looking.

The suit skirts are short but not quite as full, but full enough to allow one to enjoy a good walking step for the brisk fall weather.

Many large, roomy capes are shown, very much trimmed with fur at neck and bottom. The long coat, of the military type, still stays in the foreground.

The convertible collar, that makes it possible to close the coat up closely around the neck or leave it open, is a touch of sense as well as smartness.

A coat suit is, above all, practical. If one is well dressed for business, for theater or theatre. In fact, unless your wardrobe includes variations of costume for every occasion, the suit is least likely to be out of place.

WHEN TO WEAR THE SUIT

Fall suits are always shown in August, and if one wishes to get the full benefit from their new fall suit they must wear it early, as winter soon advances and a heavy coat is called for. This fall the suit coats tend to be a trifle longer, with the outstanding hip-line and full pockets seen on many, while others are somewhat plain and tailored. The skirts are mostly plain gathered styles, with or without belts and pockets. Materials used are chevrons, wool velour, tricotine and glove-skin duvetyne. Many of the newest designs show the loose box effect, with a half belt. Buttons and braid form part of the trimming.

For the young girl going away to college clothes are the main factor with her. The purse also has to be considered, but today one must have certain dresses, coats and capes for different occasions.

Figure 1 is a good-looking dress with an over-blouse, belt and one-seam sleeves. Velvet or sateen braided



Figure 3

Figure 4



Lauerman Brothers Department Store, Marinette, Wis.

Modern Business Service

WE want Cloverland grazers and farmers to look at this store in that way. We are here to serve you carefully, courteously and whole-heartedly.



The Marinette Store
Whose Perfect Service by Mail
Reaches Your Very Door

You can purchase by mail just as satisfactorily as if you were in Lauerman's Store in Marinette, doing your buying personally. Your goods are shipped same day order is received.

YOU CAN SAVE TIME, FREIGHT
AND MONEY BY SENDING IN
YOUR MAIL ORDERS TO US.

It will be of great benefit to you to have your name on our mail-order list and receive price lists and quotations on whatever you need.

ROSECO BRAND

Food Products



The Standard
of Excellence
in Greater Cloverland



Follow the Sign of the Rose

Roach & Seeber Co.

Wholesale Grocers

CALUMET, MICH. MARQUETTE, MICH.
HOUGHTON, MICH.
IRONWOOD, MICH. WATERLOO, WIS.

makes this a dress to be used for varied occasions.

Figure 2 represents a simple taffeta dress, with over-tunic and tucks and braid for trimming.

The coat dress shown in Figure 3 is a very practical street or school garment. It is braid-trimmed with the large patch pockets to give the hip extension. Wool jersey is the best material for this garment.

In Figure 4 we have the eton jacket effect shown on a one-piece dress of dark brown serge, with white flannel collar and cuff effect. A piquoted braid is the only trimming.

The middy blouse shown in design to the right always has a large following of admirers, for it slips on over the head and has the popular adjustable blue flannel collar, with cuff and patch on pocket to match—the ideal blouse for outdoor sports.

And then a smart hat and sweater must be included in our college girl's list. The ever-popular tam for school wear and a small-rimmed black velvet hat with crushed silk crown fill the bill nicely.

So many of our girls are sewing now, getting ready for school. I hear them say: "Why not all try this year to make a garment, if ever so plain, and save a little. So many things must be bought, shoes, gloves, coats, furs, stockings, rubbers and underwear. Why not make the muslin garments or the sleeping gowns?"



Figure 5

Try, girls, and you will be surprised how willing every one who sews is help you.



Figure 6



Figure 7

Home Drying Fruits and Vegetables

(Continued from page 28)

dry. It should be crisp and hard when dry.

APPLES, PEARS AND OTHER FRUITS

Apples for drying should be the fall or winter variety. They should be peeled, cored and sliced in eighths and, as they discolor very quickly, dip in a mild salt solution (8 teaspoons of salt to 1 gallon of water). Dry and place on trays in dryer. It takes from 4 to 6 hours for apples, and they should be tough and leathery.

Pears, peaches and plums do not have to be peeled. Pears are cored and sliced; peaches and plums pitted.

Pears and quinces may be steamed a few minutes (10), before drying.

In drying raspberries and blackberries do not wash them but look over carefully and lay on trays. Start drying with a temperature at 110 F. and raise to 125 F. slowly. As moisture from berries leave raise temperature from 113 to 114 F. and finish drying quickly the last 2 or 3 hours.

PUMPKINS AND TOMATOES

Pumpkins may be dried the same as apples, or they may be cooked down as dry as possible and then dried on trays.

In drying tomatoes very few people try this as it seems to require so much time in cooking down.

They should be washed thoroughly, only firm tomatoes used, scalded in hot water until the skin will come off, sliced and boiled down without water

until tender. Rub them through fine sieve and boil down pulp over heat until it is so thick that it is difficult to cook without burning. The place in a slow oven where the moisture will evaporate until the pulp stiff enough to hold its shape when lifted up. It can now be placed in cans and stored and used this way, the drying may continue until it can be cut in cubes and put away in the paraffined containers. This pulp will be found to be very strong and a very small amount will go a long way.

Insects and moisture are the two things which destroy dried products so great care must be taken in the storing.

PAINT PROLONGS LIFE

THE varnish on carpet sweeper soon wears off. Unprotected as then is from moisture and variation in temperature, it is likely to fall in pieces. This can easily be prevented by applying a coat of stain finish, obtainable at any paint store, whenever the machine shows the need of it.

Washing machines should also be protected from variations of temperature and moisture. When the original finish shows signs of wear apply coat of colored enamel.

A little attention to these details on the part of housewives will prolong the life of utensils or utilities which cost considerable money to replace nowadays.



JELLY

SO MUCH can be said on this subject that we will give a few general rules which will apply to all fruits and for jelly making.

Wash the fruits and remove stems and imperfections. Cut large fruit into pieces. With watery fruit, such as grapes and currants, use no water. With apples and quinces use enough water to cover.

Cook the fruit until the juice flows, mashing it with a spoon. Remove it from the fire and strain it through a bag hung from the ceiling or between two chairs. Do not squeeze the bag at first. When nearly all is strained through the bag may be squeezed. Keep this last juice by itself. The jelly made from it will not be clear out can be used for jelly cake, etc.

Measure the juice and put an equal quantity of sugar in the oven to heat. Boil the juice with the sugar until the jelly thickens slightly when dropped on a cold plate. Pour into sterilized jelly glasses and set aside to harden. Label.

Jelly must be covered with paraffine to protect it from mould.

The jelly will be clear and finer if the fruit is simmered slowly and not stirred during the cooking. If the syrup boils too rapidly it will not jell.

CRABAPPLE AND PLUM JELLY

$\frac{1}{2}$ peck crabapples. $\frac{1}{4}$ peck plums. Water to barely cover sugar.

Select under-ripe fruit. Wash and pick over, but do not pare or seed. Boil until soft. Mash and pour into jelly bag to drip. Do not squeeze. Take equal parts of sugar and juice.

Let juice boil five minutes, add sugar and boil until a drop jells on a cold plate. Skim and turn into hot glasses, cover and keep in a cool, dry place.

CURRENT AND RASPBERRY JELLY

4 quarts currants. 4 pints raspberries. Sugar.

Select the cherry currants. They should not be over-ripe or gathered after a rain. Pick over the fruit, but do not take the stems from the currants. Mash the fruit. Cook slowly until currants are nearly white. Take equal parts of sugar and juice. Boil five minutes, add heated sugar and boil three minutes. Skim and pour into glasses. Cover with paraffine.

CHERRIES IN CURRENT JELLY

(Very Fine)

2 quarts currant juice.
2 qts. stemmed and pitted cherries.
8 pounds sugar.

Wash, mash and cook slowly at first as many currants with stems as will make two quarts of strained juice. Let juice come to a boil, add sugar and skim. Add cherries and cook slowly and steadily from 10 to 15 minutes. Pour in jelly glasses. Cover with paraffine.

GRAPE JELLY

Grapes should be picked over, washed and stems removed before using. Heat to the boiling point and cook until seeds are free, about 30 minutes. Pour into jelly bag to drip. Take equal parts of sugar and juice and boil until it jells. Skim and pour into glasses. Cover.

CANNING

FRUIT for canning should be fresh, firm and not over-ripe. The over-ripe fruit is apt to hold the germ, and this causes fermentation in a short time.

CANNED PEACHES

Wipe peaches and place them in boiling water and let them stand long enough to loosen the skins. Remove skin and cut into halves, or cook whole. Add the boiling syrup at once before they discolor. Follow directions for canning.

CANNED PEARS

Wash, wipe and pare fruit. Cook whole, or in halves or quarters. Two cloves with blossom removed and stuck in pear, or a small piece of gingerroot, give an additional flavor, as the pear has little flavor of its own after it is canned.

GINGERED PEARS

8 lbs. fruit, cut in small pieces.
Juice and rind of three lemons.
6 pounds sugar. 1 pint cold water.
 $\frac{1}{4}$ pound ginger, parboiled and cut in small pieces.
Boil slowly for three hours.

SPICED PLUMS

To each pound of Damson plums add three-fourths of a cup of sugar, one-half ounce each of ground cinnamon, cloves and mace. Tie the spices in a small piece of cheese cloth. Boil the plums until tender, then remove the stones and seal like jam.

CANNED TOMATOES

Place the tomatoes in boiling water until the skin is easily removed. You can put them up whole or cut into pieces. If you use them whole you

Boil It Thoroughly

—fifteen minutes or more after boiling begins—

Long boiling brings out the full, rich flavor of

Postum Cereal

And while you enjoy your cup of this attractive table drink, remember that it contains no caffeine or other harmful substance.

"There's a Reason"

Made by Postum Cereal Company, Inc.
Battle Creek, Michigan



Truly a Quality Coffee

It is the result of twenty-two years of careful and intelligent blending by coffee experts.



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ROASTED and PACKED BY

JOANNES BROS. COMPANY

GREEN BAY, WISCONSIN

Why It Pays

Advertised for 50 years —
Every woman knows about it—
It brings "repeat" business—
It nets a good profit—
It ends baking disappointments—
It never fails to give satisfaction.

That's "Why it pays" to push

ROYAL Baking Powder

Absolutely Pure

Made from Cream of Tartar, derived from Grapes

Contains No Alum

Leaves No Bitter Taste

Northern State Normal College

MARQUETTE, MICH.

New Buildings Excellent Equipment Splendid Faculty

College Courses leading to A. B. degree—Normal School Courses for teachers of all classes—Special Courses in Art, Music, Manual Training, Home Economics, Kindergarten and Commercial.

The school has had more calls for teachers than it can supply
Write for information and bulletin

DORIS I. BOWRON, Secretary

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ENJOY COOKING

Cooking is a genuine pleasure when you know that your efforts will result in a delicious, satisfying feast.



Van Duzer's
Certified
Flavoring
Extracts

insure delightful true fruit flavors. They are rich and absolutely pure, and their quality never varies.

Van Duzer Extract Company
New York, N. Y. Springfield, Mass.

BREAD AND CAKE BOXES

NEARLY every farmer's wife owns a jannaped bread box and cake box. They are usually brown with gilt lettering. There was a time when this thwäre didn't cost much money. If a box rusted out it was carelessly tossed on the rubbish pile and a new one purchased. But price one of these boxes now! You will think twice before you chuck it.

And really it isn't at all necessary to let it get into a condition that will suggest discarding it. If the jannaped shows signs of wear go to the store and buy a small can of colored enamel. Clean the surface of the box and apply a thin coat of the enamel with an ordinary varnish brush. The rust will immediately be checked. That will be much cheaper than a new bread or cake box.

ACTIVITIES OF WOMEN.

THE National Assembly of Hungary has one woman member.

The number of women wage earners in the United States has increased 50 per cent during the last ten years.

Over 60 per cent of the engineering firms in England who employed women during the period of the war are satisfied with their work and will continue to employ them in preference to the men.

should cook them longer. In either case they should be thoroughly scalded.

As the canning time for tomatoes comes in September through most parts of this state more recipes for their varied uses will be given next month.

SWEET PICKLED PEACHES

$\frac{1}{2}$ peck cling peaches.
2 $\frac{1}{2}$ pounds brown sugar.
1 pint vinegar.
1 ounce stick cinnamon.
Cloves.

Boil sugar, vinegar and cinnamon 20 minutes. Dip peaches quickly in hot water and rub off the fur with a crash towel. Stick two cloves into each peach. Put into syrup and cook until soft using half of the peaches at

a time. Place in a stone jar with stone cover. Cook syrup until thick and pour over peaches. Pears are pickled in the same way.

PEAR AND APPLE CONSERVE

9 hard pears. 6 tart apples.
1 $\frac{1}{2}$ lemons. $\frac{1}{2}$ lb. Cauton ginger.
 $\frac{1}{2}$ pint water. Sugar.
Pare, quarter and core the pears. Pare apples, core and cut crosswise in one-half inch slices. Grate the rind of the lemons and add the juice to the water. Cut ginger in small pieces. For every pound of fruit allow on pound of sugar.

Boil sugar and water to a syrup, add the rest of the ingredients and boil 3 to 4 hours, or until thick and clear. Place in cans or glasses and cover well.

COLD DRINKS

WHEN one is hot and thirsty on a sweltering day there is a reason why your system craves the cool and refreshing drinks. This is because the body throws off a tremendous amount of moisture, which must be replenished. But it is by no means essential that a drink be iced. One that has been merely chilled is not only more enjoyable, but will perform its mission in the body more readily, because in every case it must be at least body heat before being absorbed.

Then, too, all drinks should be sipped slowly, not gulped, because Nature can care for only so much at a time and "gulping" through overtaking the stomach, is liable to cause indigestion.

The most cooling drinks are those containing fruit juices, either singly or in combination with other juices, or with tea.

Too much sugar must not be added as it spoils the flavor of the fruit and is also a heat producer.

Imagination and originality can play an important part in the making of interesting drinks.

Whereas recipes are always splendid guides they may often be modified to suit the season, the cost of fruits and the contents of the ice-box. There may be left over some cherries, a dish of raspberries and possibly a prune or two, or some cooked figs or rhubarb, either cooked or raw. In they may go, all together, with as much water as common sense may dictate, be stewed till tender, sweetened a little more than for plain sauce, strained, chilled and served with the addition of a little lemon juice and chilled or charged water.

Then again we may not have any leftovers and so it is a good plan to have a good selection of juice on hand. Apple juice, grape, loganberry, pineapple, with a bottle of lime juice for blending, together with some orange and lemon syrup, make a good selection.

Plain chilled tea is a delicious summer drink if well made and not allowed to stand too long on the leaves.

One recipe for making: Measure out six teaspoonfuls of good tea into a hot pitcher. Pour over a quart of boiling water, cover and let stand from five to eight minutes, as it should be stronger than when served hot. Strain it on a teaspoon of whole cloves, if the flavor is liked, and add a thin slice of lemon, or use a few sprigs of mint. Sweeten to taste.

Chilled coffee is also very delicious. It must be made a little stronger, blended with a little cream and sweetened to taste. May be served with or without whipped cream. A little powdered cinnamon added on a whipped cream, or a drop or two of rose extract, give it a delightful flavor.

GINGER POP

2 quarts water.
3 lemons.
2 ounces lump ginger.
1 pound sugar.
1 tablespoon of yeast or 2 yeast cakes.

Slice the lemons and pound up the ginger. Bruise together and put all in the water for three-quarters of an

hour. Then strain and make up the quantity to four quarts with hot water. When nearly cold add the yeast mixed with a little of the solution. Then stir all together. Cover the pan and let stand until morning, then bottle and tie down with a string. This will be ready for use in twenty-four hours.

LEMON FRAPEE

1 dozen lemons.
1 pint cold tea.
3 oranges.
1 $\frac{1}{2}$ pounds sugar.
1 bottle Maraschino cherries.

Make tea by steeping one heaping teaspoon of tea. Add sugar boiled to a syrup. Add any fruit juice you prefer. Fill up with chopped ice.

UNFERMENTED GRAPE JUICE

Cover the grapes well with water as not to allow them to boil to a jelly. Boil twenty minutes. Strain thoroughly in a jelly bag. To each quart of juice add three-fourths of a pound of sugar. Boil 15 minutes. Bottle while hot.

PUNCH FOR SIXTY

2 dozen lemons.
1 can grated pineapple.
9 oranges.
2 $\frac{1}{2}$ quarts water.
5 pounds of sugar.

Cook water and sugar to make a syrup. Let cool and then add other ingredients. Cherries may be added.

SUGGESTIONS FOR SANDWICH FILLINGS

Ham, chicken or veal, minced fine, seasoned and mixed with cream or salad dressing. Hard cooked eggs may be added.

Cottage cheese, plain or mixed with chopped pimientos, olives or nuts.

Grated cheese, minced green pepper and cream.

Raisins, nuts, dates and figs, ground and mixed with fruit juice.

Sardines, salmon, etc., boned, seasoned with paprika and lemon juice, or mixed with salad dressing.

Hard cooked eggs, chopped, mixed with grated cheese, butter and vinegar. Use rye bread with this filling.

Salted peanuts, ground fine and mixed with cream or salad dressing.

Dates ground and rubbed to a paste with orange juice. Good served with cocoa.

Thin slices of tender meat, veal, beef, pork or chicken.

"Love & Sympathy"

Truly Expressed by
Flowers or Emblems

from

DULUTH FLORAL CO.,

Duluth, Minn.

Ziegler's Chocolates

Package Goods of
Paramount Quality
and
Artistic Design

Development Section

Of the Cloverland Magazine

Along the northern rim of the Great Lakes Basin—across the states of Michigan, Minnesota and Wisconsin—there is a great belt of undeveloped land. A few years ago it was considered worthless—just stump land, no longer good for lumbering, and therefore useless. Today this area is recognized as the greatest frontier America has yet offered her people.

Clover is indigenous—therefore this country has been called "Cloverland"; but every other crop, native to the north-temperate zone, and every form of live stock, has been made to thrive in this new country.

Today there are many settlers, many fine farms, many thriving towns, and wonderful cattle and sheep ranches. There is room, on some 30,000,000 acres, for thousands of additional men and women, some of whom will surely achieve unusual success, and perhaps fortunes.

The Magazine is convinced that the Cloverland country has more real opportunities for farmer, rancher and business man than any other section of the United States today. But these opportunities must be carefully and soundly handled.

On the following pages you will find articles relating to this great cut-over country, known as "Cloverland." They are written by men who already live in the country, and who know it. The Magazine does not assume responsibility for all of the views or expressions included in these articles, recognizing that sometimes as individual experiences though truthfully set forth, may not be applicable to every other similar situation. However, the Magazine accepts statements only from men of standing and responsibility and believes therefore, that the following pages fairly reflect the conditions and probabilities of the North Country—"Cloverland."

Substituting Agriculture for Forest Wealth

BY ASSOCIATING farming and the live stock industry with lumbering the R. Connor Company of Marshfield, and the Connor Lumber Land Company of Laona, Wisconsin, have been removing thousands of acres of timber economically and at the same time substituting highly developed agricultural products, pure bred farm animals and live stock for the virgin forests removed.

At Auburndale, Wisconsin, the Connor Company has one of the largest and best equipped and stocked farms in the state of Wisconsin, and at Laona the company has under development an even larger farm project and one that is destined to be a great demonstration farm midst the cut-over lands of the Lake Superior region.

The R. Connor Company farm situated at Auburndale, Wis., was established back in the eighties. It was developed from the cut-over land of the R. Connor Company, one of the largest lumbering concerns in the state. The motive for having a farm in connection with their lumber industry was to raise as much produce as possible for their own use, and to feed and raise horses and cattle on the same purchase.

Today the R. Connor Company farm at Auburndale comprises over 1,250 acres, over 900 of which are under plow. Through tireless effort of W. D. Connor, president, and Major R. Connor, vice president of the company, the farm has grown to be one of the largest and most important in the North-West.

The R. Connor Company has made a specialty of raising Shire horses from their woods park, and has been singularly successful. At present they have about fifteen head of blood Shires and about seventy head of grades.



The Magnificent Connor Barns at Marshfield, Wisconsin



These Stables of Prize Horses Tell a Story of Marvelous Development on the Cut-over Lands of Cloverland

colts and older horses. These horses are considered to be the best lot of logging horses in the country. In addition to this number there are about eighty head of horses at Laona, and about fifty head at Stratford, working on the operations of the Connor Company at these two places. A great many of them are summered at Auburndale.

The Connor Company farm has had a great deal of success in raising pure bred Shire horses for show. At present the company has a five-year old mare raised on the farm which was grand champion at Iowa State Fair in 1917, and second in her class at the International that same year. They also own a fine herd of pure bred Short-horn cattle and a fine lot of pure bred Yorkshire hogs. The Connor Company has made a policy of selling their blooded stock at reasonable prices and is always pleased to have buyers

come to the farm to see what is to be had.

The principal crops are hay, oats, barley, and corn. The farm is located in the heart of Wisconsin's famous clover and dairy belt; the soil is the finest. Each year enough corn is raised to fill three silos. This year the corn yield was most remarkable. All of the corn ripened.

The Connor Lumber & Land Company was organized in 1898, with Mr. W. D. Connor as its president, and Major R. Connor as president. The mills are located at Laona, Wis., and the company is closely allied with the R. Connor Company at Marshfield.

At Laona, as at Auburndale, Mr. Connor is carrying out his idea of operating a farm along with the lumber industry. An ideal location one and one-half miles west of town was chosen, comprising an acreage of cut-over land of over

(Continued on p. 42)

WE HELP YOU!

All we ask of any experienced stockman or farmer is a clean record, possessing ambition and the energy to go forward. If you have these requisites write to us and we will give you a choice location on some of our best cut-over land on terms and conditions that will enable you to make a success if you have the right kind of stuff in you.

Write to Us

Tell us about the size acreage you want, what you want to do with it, whether you now possess any stock—beef cattle, dairy cows, sheep or swine, and horses—whether you have any farm implements and tools, and give us one or two references.

We Will Do the Rest

We have thousands of acres of good, hardwood cut-over land, watered with clear streams and lakes, with an abundance of grass and clover going to waste each year. There are no commissions to pay. We own the land and make terms and arrangements with each purchaser to suit his needs, and give aid in establishing credit and banking connections. Tell us frankly what you want. All correspondence confidential.

SAWYER GOODMAN COMPANY

MARINETTE, WISCONSIN

Or

GEORGE H. HEDQUIST, Supt.,

GOODMAN LUMBER COMPANY

GOODMAN, WISCONSIN

The Land Clearing Train in Northern Minnesota

(Continued from page 11)

enriched the soil and made it ready for high production. Then follows the question of what crops to sow. The answer to this is found in the necessities of the individual farmer. If he needs cash, he will sow potatoes. If he needs forage, he will sow oats, possibly.

This system has been found to be highly satisfactory and has been worked out accurately as to costs with the result that the expense is known to be one-third less than under the forced system.

Both in minor and major points, therefore, the land-clearing train proved highly educational.

The demonstrations were attended by not less than 10,000. Twenty-four demonstrations were given and the average attendance was something like 500. A great many more would have been present at many places had

it not been for heavy rains and in some places almost impassable roads. From three to five acres were cleared at each stop making a total of perhaps 100 acres in all that were actually cleared. At \$50 an acre for clearing, this increased the value of the lands cleared about \$5,000, which would cover the cost of operating the train, exclusive of the costs of the companies represented as co-operator and the costs of transporting the equipment and men. This was not paid for by the men on whose farms the work was done, nor was it paid for out of the taxes of the state but was contributed by the business men's organizations of the Twin Cities. The only item which would come out of the funds received by taxes was the small portion going into the salaries of the men from the university who gave their time to the enterprise.



The Kind of Stumps the Modern Stump Puller will Remove. A Small Charge of Dynamite is Sometimes Used After the Stump is Pulled to Break It Up and Make It More Easily Skidded to the Pile.

Business Streams Overflowing

DIFFICULTY in securing fabricated products and equipment of every sort, traceable right back through the factory, even to the source of the raw material, is seriously affecting practically every line of business in Michigan, according to a very enlightening bulletin sent to employees of the Michigan State Telephone Company by President Franz C. Kuhn. In an accompanying letter Judge Kuhn dwells upon the necessity for conservation of all material in view of the serious conditions facing the nation's industries.

The bulletin calls attention to the fact that the telephone company faces the same conditions as does the hardware merchant, the drygoods man and the automobile manufacturer.

It is estimated that, in spite of greatly increased prices and demand, the average falling off of production has been 35 per cent. Never has the present demand for manufactured goods, for railroad or telephone service, for every product of human endeavor been equalled, the bulletin says, and the result is that the enthusiastic telephone man, who is anxious to fill all orders for new service, cannot make prompt installations.

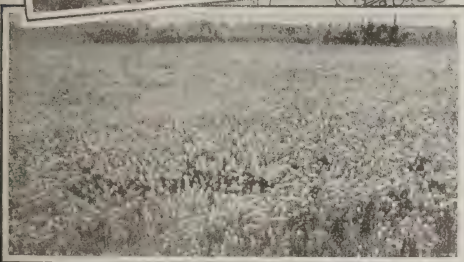
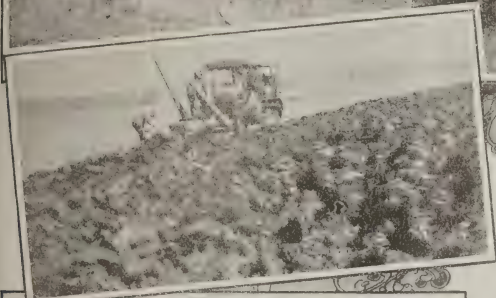
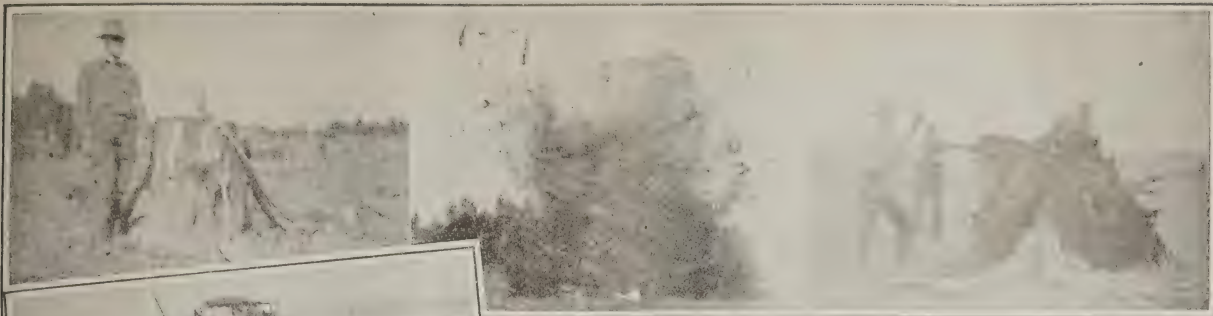
Commenting on the situation the bulletin says: "The streams of business, after being dammed up during the war period, have overflowed their banks. The whole country is flooded with business and the flood is constantly finding new and unexpected channels. The flow of business has been interrupted by political uncer-

tainty, by financial uncertainty, by the shortage and disturbance of labor, by the scarcity of raw and fabricated materials and by the overload that has been put on the means of transportation and communication.

"The Bell system is larger than ever before, but it has not yet become large enough for the new and greatly increased demands. It is building all over the map, building plants and building up its force of men and women.

"New central offices are needed, new switchboards, new relays, new distributing boards, new conduits, new cables, new manholes, new pole lines, new equipment of every kind. Thousands of miles of cable must be laid and spliced, thousands of miles of wire must be strung, uncounted millions of joints must be soldered to make perfect electrical connections in new central office equipment. The whole country is teeming with this construction, covering every mechanical process from the factory production to the installation of the subscriber's station. Rapid work is being done, but everybody naturally wants it to be more rapid.

"It is safe to say that no other industry has been more forehanded in providing for emergencies than the Bell system, and yet day after day the mails bring reports of broken promises, and materials vitally necessary to the work of construction are delayed, and it appears to be nobody's fault."



Sheep and Dynamite an Unbeatable Combination Northern Minnesota That Produces Big Results

SHEEP and dynamite handled in conjunction with one another is the way the Western sheep rancher in Northern Minnesota is setting about to get the greatest return from the lands he has taken up. The pictures tell the story.

THE PLAN OF OPERATION

From 90 to 120 days during the winter feed must be provided. The right way to provide that feed is to grow it on the ranch. The top panel illustrates the best and quickest method of getting the land in shape for cultivation. The plow follows the clearing, as illustrated in the second picture; the result is shown in the third illustration. The pulse quickened, wonderful field of that Northern Minnesota "weed"—CLOVER. No-where is finer or is greater yield to the acre produced.

While the land clearing and seeding has been going on, sheep have been grazing on various sections of the uncultivated land; besides taking on weight the sheep have made ready the land for easy clearing. The dynamite moves in and the sheep move on to another section. So the work progresses until sufficient land is under cultivation to produce sufficient hay, roots and other crops as desired to winter successfully. The entire job of clearing may be done in one year or a number of years to suit the individual desire.

THE RESULTS

1. The development of a permanent ranch in a dependable country.
2. Or ultimately the dividing up of large tracts that can be acquired at very low prices, at present, into smaller tracts for intense cultivation and dairy farming; the land at that time demanding good prices at a most satisfying advance.
3. The value of both cleared and uncleared lands are increased, at least, twice over the money invested.

NORTHERN MINNESOTA IS DEPENDABLE

We have several desirable tracts, and follow a very liberal policy in assisting in the development of these lands. We would be glad to tell you more about these lands—write us.

Cloquet Lumber Co. Northern Lumber Co. Johnson & Wentworth Lumber Co.





250,000 Acres

unimproved Cut-over Lands

For Sale

in Tracts to suit
the purchasers.

Located in four-
teen counties in
Cloverland — the
Upper Peninsula
of Michigan.

Prices:

\$5 to \$15 per Acre

Terms are reasonable

Write me for definite quotations, maps, etc.

J. M. LONGYEAR
MARQUETTE, MICHIGAN

His Stock in Trade

(Continued from page 14)

and if Mitchell elected to horn his way in it was a hundred-to-one shot that he'd have to give up solid foods for a month or more and take his nourishment through a glass tube.

Nor were the young man's troubles confined to the office. Miss Harris, it seemed, had seen him with a different lady each night she and Mr. Gross had been out, and had drawn her own conclusions, so, therefore, when he tried to talk to her she flared up and called him a dissipated rascal, and threatened to have the head bookkeeper give him a thrashing if he dared to accost her again.

Now the various apartments where Mitchell had been calling, these past months, were opulently furnished with gifts from the representatives of the various railway supply houses of the city, each article being cunningly designed to cement in the mind of the owner a source of supply which, coupled with price and delivery, would make for good sales service. He was greatly surprised one day to receive a brass library lamp from the Santa Fe the initial destination of which had evidently been changed. Then came a mission hall-clock in the original package, redirected in the hand of Miss Gratz, of the C. & E. I., and one day the office-boy from the Lackawanna brought him a smoking-set for which Miss Phoebe Snow had no use.

Gifts like these piled up rapidly, many of them bearing witness to the fact that their consignments originated from Mitchell's very rivals in the railroad trade. Judging from the quantity of stuff that ricocheted from the Santa Fe it was Miss Dunlap's evident desire to present him with a whole housekeeping equipment as quickly as possible. Louis' desk became loaded with ornaments, his room at Mrs. Green's became filled with nearly Wedgwood vases, candlesticks, and other bric-a-brac. He acquired six mission hall-clocks, a row of tabourets stood outside of his door like Turkish sentinels, and his collection of ash-receivers was the best in Chicago.

Miss Harris continued to ignore him, however, and she learned with a jealous pang that she was giving Mr. Gross a gratuitous course of facial massage and scalp treatments. No longer did Mitchell entertain his trade; they entertained him. They tried to help him save his money, and every evening he was forced to battle for his freedom.

In desperation he finally went to Murphy begging quick promotion to a travelling position, but the Sales Manager told him there was no chance before the first of the year, then asked him why he had lost his grip on the Lackawanna business.

As a matter of fact, since Miss Phoebe's rate clerk had declared himself Mitchell had slipped a few Wednesday nights, trusting to hold the Lackawanna trade by virtue of his past performances, but he realized in the light of Murphy's catchism that eternal visiting is the price of safety. He sighed, therefore, and called up the lady, then apprehensively made a date.

That visit issued in disaster, as he had feared. The rate clerk, gifted with some subtle second sight, had divined his treachery and was waiting. He came to meet the caller gladly, like a paladin. Louis strove to disarm the big brute by the power of the human eye, then when that did not work he explained, politely, earnestly, that his weekly calls were but part and parcel of his business, and that there was nothing in his mind so remote as thoughts of matrimony. But the rate clerk was a stolid, a suspicious person, and he was gnawed by a low and common jealousy. Reason failing, they came together, amalgamating like two drops of quicksilver.

On the following morning Mitchell explained to Mr. Comer that in stepping out of the bathtub he had slipped and wrenched both shoulders, then

while passing through the dark hall had put his face into a morning by colliding with an open door. His ankles he had sprained on the way down-town.

About nine-thirty Miss Dunlap called up, but not to leave an order. When she had finally rung off Louis looked dazedly at the wire to see if the insulation had melted. It seemed impossible that rubber and gutta-percha could withstand such heat as had come sizzling from the Santa Fe. From what the lady had said it required no great inductive powers to reason that the rate clerk had told all. Coming victorious to Miss Lackawanna's door to have his knuckles collodionized he had made known in coarse, triumphant language the base commercialism of his rival.

The result had been that Phoebe arose in her wrath. Just to verify the story she had called up the other railroad offices this morning, and the hideous truth had come out. It had come out like a herd of jack-rabbits ahead of a bound. Miss Dunlap was shouting mad, but Phoebe herself, when she called up, was indignant in a mean, sarcastic manner that hurt. The Northwestern rang Mitchell to say good-by forever and to hope his nose was broken; the Big Four promised that her brother, who was a puddler in the South Chicago steel mills, would run in and finish the rate clerk's job; Miss Gratz, of the C. & E. I., was tearfully plaintive and, being German, spoke of suicide. Of course all business relations with these offices were at an end.

During that whole day but one 'phone order came, and that was from Miss Monon. Mitchell had been stealing himself to hear from her, but it seemed that she took the whole thing as rather a good joke. She told him she had known all the time why he came to see her, and when he reminded her that it was Thursday she invited him to call if he thought it worth while.

When he saw Miss Harris at supper-time and undertook to explain his black eyes she assured him coldly that he and his ebony gig-lamps mattered nothing in her young life, as evidence of which she flashed a magnificent three-quarter carat diamond solitaire on her third finger. She and Mr. Gross expected to be married inside of two or three years if all went well, she told him.

At eight o'clock, disguised behind a pair of blue goggles, Louis headed for Miss Monon's door, glad that the cozy corner was so dimly lighted. When he arrived she bathed his battle-scarred features with hamamels, which is just the same as Pond's Extract, but doesn't cost so much, and told him the other girls had acted so foolishly. She was very sweet and gentle with him and young Mitchell, imperfect as was his vision, saw something in her he had never seen before.

(Continued on page 40)

FARM LANDS

I am a farmer myself, work a 1,200-acre farm each year, so I know what farming land is. I know what a farmer wants. I have a large acreage of unimproved farm land for sale and guarantee satisfaction.

Write to me.

J. W. Weston

Proprietor,

Oak Ridge Dairy

WAKEFIELD, MICHIGAN

A Real Plan to Aid Settlers

Investigate! Read Our Plan. Investigate!



WE ELIMINATE THE FIRST FEW YEARS OF HARDSHIP.

We have set aside a fund to help you clear the land or have a portion cleared and under plow if you want it.

We provide a residence and farm buildings, horses, cows, sheep, pigs, chickens—everything needed to settle right down and go to work to make the land and live stock pay for your farm home, if you want to start this way. Or, we will sell you the unimproved land if you prefer to do all of your own clearing, build and stock your own place. All deals on easy, long-time payments.

We have three classes of land—first class, medium, and second class. You pay for the CLASS of land, and not a big price for poor land.

We give you expert advice in agriculture and live stock production free, in order to help you avoid mistakes and succeed in the shortest possible time. The more we can help you pay out the quicker our money is returned and the sooner you will have that coveted possession—a farm home of your own. This is good business for both of us.

RANCH LAND

We have thousands of acres of splendid grazing land with plenty of fresh water streams and lakes and ample sections of good farm land for raising winter feed. This land is cheap and we will make it to the advantage of the larger live stock operators to obtain one of these dependable ranges. These tracts in 1,000 and 5,000 acres solid blocks.

SEND FOR BOOKLET AND COMPLETE INFORMATION

A POSTCARD WILL BRING IT

NORTHERN MICHIGAN LAND COMPANY

MANISTIQUE, MICHIGAN

309 Caswell Block, MILWAUKEE, WISCONSIN



These companies were the first to bring cattle to its cut-over lands, and carry on profitable and successful grazing in Cloverland.

WE offer the western grazers their choice of 75,000 acres of cut-over lands in Cloverland; 25,000 in Northern Michigan; 50,000 in Florence and Forest Counties, Wisconsin.

Several ranches were selected and taken over last year by well-known western cattle and sheep men.

Write us for particulars or come and see these lands for yourselves.

J. W. WELLS LUMBER CO.
MENOMINEE, MICH.

GIRARD LUMBER CO.

J. W. Wells, President

DUNBAR, WIS.

MENOMINEE, MICH.

A Swing Around the Circle at Fair Time

(Continued from page 10)

been decided upon. Since D. C. McMillan, manager of the state experiment farm at Chatham, is the newly elected president, it is assumed that the experts from the state college will assist in arranging the program. This ought to be a record-breaker. The state farm will no doubt bring forth a number of decidedly interesting exhibits.

At this point two possible routes are opened up. To proceed eastward, through Luce, Schoolcraft, Mackinac and Chippewa Counties, or to double back, proceeding westward, along Route No. 15, through Marquette to the Copper Country. Since a greater number of fairs are planned for the latter route we will cover that first.

By just jogging along comfortably, after the last day of the fair at Chatham, the motorist would find that by hugging the right hand side of the road he might conveniently avoid the almost steady stream of farmers' wagons and "flivvers" on their way to the fair at "The Queen City of the North," the dates here being Sept. 21, 22 and 23. Here the three cities of Ishpeming, Negaunee and Marquette co-operate in one of the biggest fairs held throughout Cloverland. Racing events are a distinct feature, Dr. A. W. Deadman, of Marquette, being in charge of the events this year as secretary and manager of the Upper Peninsula Horse Racing Circuit.

We predict the Marquette fair will hold you until Sept. 23, the last day, and by starting out from Marquette on the morning of the 23rd, the motorist, by noon of that day, could jog into the first day's doings at Baraga, in Baraga County. The Baraga fair dates are Sept. 23, 24 and 25. Baraga reports big plans for this year's event. Over 1,500 entries featured last year's fair.

Then, on to Houghton and the Copper Country. Three days' grace are allowed to recover from the Baraga County fair, for the Houghton event opens Sept. 28, continuing through Oct. 2. Last year's premiums exceeded \$2,073, with approximately \$1,600 paid for attractions. Fair property to the value of \$16,000 has been purchased and paid for, including five good-size buildings. Over \$8,000 is planned for expenditures this year.

It might be a good idea to fill in the time between the Baraga event and Houghton's fair by journeying straight on through to the "tip of Cloverland"—Keweenaw County, where the fair will be held this year from the 25th to the 28th of September. The Keweenaw Agricultural Society is in charge of the event, and a number of distinct features are being arranged. Among them is a mineral exhibit, showing drills in operation, shaft construction and models of the latest improved mining machinery. It is a feature which will not be duplicated or copied by any other fair in Cloverland. A natural woods exhibit will

also be a specialty display at the Keweenaw fair.

The dates throughout the eastern portion of Cloverland are somewhat scattered. Nevertheless, by a little sandwiching between the events in the western section, the fairs of Luce, Schoolcraft, Mackinac and Chippewa Counties might be included.

Luce County is hard at work for what is planned to be a record-breaker for that section. The county officials are co-operating with the farmers and urging an excellent display for the fall event. Here boys and girls' club work is also a feature, and displays will be worked out in connecting with this phase of the work.

Mackinac County is "coming out" with a new race track as the leading feature for its 1920 fair. Racing will be one of the chief attractions, according to present plans, Mackinac being in the circuit with Newberry, Sault Ste. Marie and Pickford.

Oct. 7 and 8 are the dates of the Chippewa County fair at the extreme eastern end of the peninsula. It will be Chippewa's fifteenth annual fair, and will feature live stock of all kinds, as well as farm products and equipment. Chippewa also maintains two other fairs, at Pickford and Stalwart, both hustling farming communities. Premiums amounting to approximately \$8,000 have already been subscribed. Over 10,000 persons attended the Chippewa County fair last year, and a record of from 15,000 to 20,000 is looked for this fall.

Dr. A. W. Deadman, of Marquette, secretary and manager of the Upper Peninsula Racing Circuit, is the leading light in the movement to restore horse-racing to its former place of popularity among the "fair fans." Dr. Deadman, with other racing devotees, is hard at work in an effort to force down the almost prohibitive rate which it is claimed the railroads have imposed upon race-horse transportation. The action of the railroads in boosting transportation rates on racing animals, Dr. Deadman declares, has contributed more than any other feature to the scarcity of good racing events among the Upper Michigan fairs today.

It is likely, too, that carnival companies and other forms of amusement will occupy a prominent place in Cloverland's fairs this year. It has been proven that this kind of entertainment draws a good portion of the average fair crowd. The "hurdy gurdy" and merry-go-round add a sort of excitement and fascination to the fair atmosphere which no other feature can give—and they are destined to play important parts in bringing out the crowds for Upper Michigan's 1920 fairs.

So, all considered, there's a big time ahead for the fall tourist to Cloverland—a big time for "pa," "ma," and the kids as well, whether "pa" is a farmer, a banker, a doctor or a lawyer. Plan your trip to take in the Cloverland fairs.

WHAT THE

I. Stephenson Company Trustees

WELLS, MICHIGAN

Offer to Homeseekers on the Sunny Side of Cloverland, the Upper Peninsula of Michigan

—Choice of 400,000 acres of land at prices ranging from \$20 to \$30 an acre for cut-over land.

—A climate the same as upper New York, northern South Dakota and central Minnesota—this district is 600 miles south of the much advertised wheat belt of Canada.

—A variety of soils fit for all crops grown in the north temperate zone.

—Good roads, good schools, good water and climate.

—Home markets that now are forced to depend on outside communities for much of their food.

—Railroad service that brings 10,000,000 people within a night's ride for farm products, and the equal of that afforded the farmers of Indiana, Illinois and Iowa.

Fruit, Dairying and Live Stock,
Truck Gardening, Grains,
Root Crops

—An unsurpassed fruit country, protected by 1,000 miles of shore line along Lakes Michigan and Superior—a practical insurance against frost damage. A choice of five lines of farming.

CLOVERLAND FAIRS

For the Farmer, the Mining Man, the Lumberman, the Manufacturer, the Housewife, the Boy and Girl—for Red-blooded Men and Women in Every Walk of Life—the County Fair Holds a World of Interest.

Watch the Papers
for plans for
Your
County Fair



Cloverland will
have from 12 to 15
County Fairs
This Fall

It is a singular circumstance, but true, that the dates for the various events are arranged to permit an automobile trip through Cloverland, taking in almost every fair.

There will be agricultural displays, mining, lumbering, wood-working and other features which are carried out in Cloverland.

There will be economics displays for the women, and the same for boys and girls.

There will be horse racing, auto and motorcycle racing, carnival shows and other outside attractions.

Cloverland's fairs are for old and young alike—for the expert professional and the mildly curious.

It is a big "get-together" time for both country and city folk.

It is the farmer's one holiday a year—and at a time when the crops are in and the heaviest work is done.

It is an annual conference of farmers, manufacturers, dairymen and of all classes and trades, when one learns the work of the other and thus improves his own usefulness and adds greater efficiency to his own job.

HOW TO GET THERE

Write The Upper Peninsula Development Bureau
MARQUETTE, MICHIGAN

We Want Settlers in Gogebic Co., Mich.

This county is making settlement of the land a part of its official business, and all settlers are directed to the County Agricultural Agent, whose expert services are to be had free of charge in approving land selections, advice as to clearing, crops, cultivation, live stock growing and dairying.

The big iron mining district of Ironwood affords immediate market for all farm products at profitable prices. A mining community is a consuming community and is always willing to pay good prices for good farm produce.

There is no better opportunity anywhere in the country today to enjoy quick and satisfactory returns from the farm, especially if you have a few dairy cows and chickens.

There are thousands of acres of good farming land in Gogebic County that may be purchased at very low prices and on easy payments. There are good roads and intersecting roads which afford easy access to market, and splendid railroad facilities for shipping. There are good schools throughout the county, and churches that supply a social need not always available in more sparsely settled regions.

There are large tracts of standing timber adjacent to the cut-over land which may be purchased.

Gogebic County has all the natural resources—mining, timber, agricultural land. Could you ask for a better combination in seeking a profitable farm home?

FOR DETAIL INFORMATION WRITE TO

C. E. GUNDERSON

County Agricultural Agent,

IRONWOOD

MICHIGAN

Ranches Ranges Farms

Any acreage you want
Any easy terms you want
Any way you want to buy
Any kind of land you want

The County Board of Supervisors of Iron County, Wisconsin, wants practical stockmen to take up large ranches in their county, and will aid them in locating and financing.

The County Board of Supervisors of Iron County, Wisconsin, wants experienced farmers to take up small or large acreages of the best hardwood land in the cut-over country, and develop them into paying live stock farms. The Board will help them find a good location close to local markets, on good roads and with railroad facilities.

Ranches \$10 An Acre,
Farm Lands, \$10 to \$20 An Acre,
Ranges Free for Season.

DANIEL REID

Chairman County Board of Supervisors,
HURLEY, WISCONSIN

Breeders and other Buyers

The Wisconsin State
Fair, Milwaukee,
Aug. 30 to Sept. 4, inclu-
sive, will present the Best
the Great Badger
State has to offer in
Life Stock, Agriculture
and Allied Industries //

One Wisconsin County
alone will send over 400
Dairy Cattle, including
Grand Champions and Cham-
pions //

The Wisconsin State Fair aims at
Commercial Results,
as well as Educational and
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Don't Miss It!

Send for a
Premium Book
for 1920

Oliver E. Remy
Secretary State Fair
Milwaukee

**FLORENCE COUNTY,
WISCONSIN LANDS**

for sheep and cattle ranches, in
tracts of 320 acres up to 5,000
acres. For full particulars, write
PETER MCGOVERN LAND CO., Florence, Wis.

His Stock in Trade

(Continued from page 36)

A week went by, during which it seemed that all the railroads except the Monon had suddenly gone out of business. It was as if a strike had been declared. Another week passed and Mitchell's sales were scarcely noticeable, so Mr. Comer called him in to ask:

"Is your 'phone disconnected?"

"No, sir."

"Do you know the price of our goods?"

"Yes, sir."

"Don't you sleep well at home?"

"Yes, sir."

"Then what has become of those pick-ups?"

"I seem to have lost—my trade."

"Your 'trade!' Bah! Young man you've been dissipating. That expensive account turned your head. You've been blowing in our money on your friends, and you've let your customers go. I you can't hold the railroad business we'll get some fellow who can. Cut out your sewing-circle wine suppers and your box parties to the North Shore debutantes and get busy. You've got a week to make good. One week."

There wasn't the slightest chance and Mitchell told Miss Monon so when Thursday came around. He told her all about that promised position on the road and what it meant to him, and then he told her that beginning Monday he'd have to hunt a new berth at twelve dollars per. She was very quiet very sympathetic—so sympathetic, in fact, that he told her some other things which no young man on a diminishing salary should tell. She said little at the moment, but she did considerable thinking, and she got busy on her 'phone early the next morning. The first number she called was the Santa Fe's. When she had finished talking with Miss Dunlap that hempen-haired sentimentalist was dabbling her eyes with her handkerchief and blowing her nose, assuring Miss Monon, at the time, that she was a dear and that it was all right now that she knew the truth. Miss Monon blushed prettily, thanked her, and confessed that she had felt it coming on for some time. Thereupon they took turns calling the others, from the Big Four to the C. & E. I., with the result that Mitchell's wire began to heat up.

Phoebe Snow called him to say that she hadn't meant what she said, that he was a good old scout, and that the rate clerk was sorry also, and wanted to stand treat for a Dutch lunch. Then she left an order for a ton and a half of engine bolts.

Miss Gratz cried a little when she heard Mitchell's voice and told him to make his own price on forty kegs of washers and suit himself about delivery.

Miss Dunlap confessed that it was her pride which had spoken, and, anyhow, she knew altogether too much about marriage to take another chance. She'd rather have one man friend than three husbands.

One by one the flock returned, and Saturday night Mitchell sent five pounds of chocolates and a sheaf of red roses to the one who had made it all come out right. He got his share of business after that, and when the holidays came they brought him his promotion.

Murphy, who knew most of the facts, was the first to congratulate him. "Jove!" he said, "that little Monon lady saved your bacon, didn't she? By the way, you never told me what her name was."

Young Mitchell's cheeks assumed a shell-pink shade as he replied: "It doesn't matter what her name was, it's Mitchell now. We were married yesterday and—all the roads were represented at the wedding."

THE END

Good farm horses are in greater demand now than at any time in history. It is an opportune time to breed and raise draft horses, as there is little likelihood of the market declining within the next decade, if ever. The demand is in the city as well as in the country.

“CRACO”

What does it stand for?

It stands for all that is best in live
stock commission service because
it stands for

Clay
Robinson
And
C
O

Sales that Suit, Purchases that Please
Service that Satisfies

CLAY, ROBINSON & Co.

CHICAGO

KANSAS CITY

SOUTH OMAHA

EAST ST. LOUIS

DENVER

SOUTH ST. PAUL

EAST BUFFALO

SOUTH ST. JOSEPH

SIoux CITY

FORT WORTH

EL PASO

**A New Farm
In a Proven
Farming District
Insures Success**

Inquire About
Ontonagon County,
Michigan

Ontonagon County, Michigan

is an agricultural region sparsely populated with practical, successful farmers, who have had the advantage of a splendid clay-loam soil as the basis for farming. There are thousands of acres of this same type of cut-over land in Ontonagon County awaiting the settler, or big rancher. Most of the timber was taken off years ago, a greater portion of the land is open, and there is an abundance of clover and grass ready for range purposes, pasture and wild hay. The county's chief industry is agriculture, so you will be settling among farmers in Ontonagon County.

No Real Estate Game

The County Board of Supervisors of Ontonagon County are inviting you in this advertising space to inquire about their county, and they will give you official service in helping you find the location you want. Detail information may be had by addressing a letter or post card to

WILLIAM KROHN
County Clerk, Ontonagon County,
ONTONAGON, MICHIGAN

Upper Peninsula Cut-Over Lands

Suitable for Grazing or General Agricultural Purposes

FOR SALE

in Alger, Chippewa, Gogebic, Luce,
Mackinac and Schoolcraft Counties

THE Northern Peninsula of Michigan is the best Live-stock and Dairy country in the United States, if not in the world. It can care for 8,000,000 sheep and 1,000,000 head of cattle.

For information write

LAND DEPARTMENT, Charcoal Iron Company of America
MARQUETTE, MICHIGAN



A Cloverland Grand Champion

Substituting Agriculture for Forests

(Continued from page 33)

two full sections. Already there are over 250 acres under the plow. Each year more land is cleared with the idea of eventually having a larger farm than at Auburndale. The land is especially adapted to clover hay, oats and potatoes. The Connor Company is finding that this Northern Wisconsin soil is just as productive as that farther south.

The company is making a policy of building only the finest buildings on their farms at Laona. In 1913 a horse barn was constructed on the farm (44 ft. x 140 ft.) with three large mows overhead, and several rooms for grain. The stall floors are all laid with cressote blocks; the other floors are cement and the walls are plastered. It makes one of the best equipped barns and one of the largest in the state. In the last two years they have also constructed an up-to-date hog pen, a root cellar, and a machine shed, a farm boarding house with accommodations for thirty men, and a manager's house.

The company plans to build a dairy barn in the spring with the most up-to-date equipment. After the barn is completed, the plan is to obtain some

high-grade dairy cows and to start a herd which will compare with anything in the North.

At the present time they are feeding 110 heads of steers many of which will be butchered for use in the lumber camps. They also have a fine lot of Yorkshire hogs, and a few choice Holstein cows.

This year the farm produced 2,500 bushels of oats, 1,900 bushels of peas, 400 bushels of rye, 150 bushels of potatoes, 175 tons of hay, and 4,000 bushels of potatoes. In addition to this eighteen acres of corn was raised—from which 1,500 bushels of ear corn were taken and two silos nearly filled.

The Connor Lumber & Land Company owns one of the largest tracts of timber land in the Northwest—over 55,000 acres of virgin timber in close proximity to Laona. The company has approximately 20,000 acres of cut-over land, representing some of the most desirable land for farming in Northern Wisconsin. At the present rate of lumber production the Connor Company will have at least forty years' run at Laona before all the timber is removed.



The Connor Farm at Laona, Which will be Larger Than the Marshfield Farm in a Few Years.

MORE FARMERS

There is room for 100,000 new farmers on the cut-over lands tributary to the SOO LINE in Upper Michigan, Upper Wisconsin, and Northern Minnesota.

Good lands which will fulfill any conditions imposed by the new farmer as to location, soil, climate, rainfall, water-supply, roads, schools, churches and neighbors. Lands which can be bought at a price that will fit the pocket of the poor man, as well as meet the requirements of the man of means. Write for information,

H. S. FUNSTON, Land Commissioner SOO-Line Railway
MINNEAPOLIS, MINN.

Wisconsin Central Ry. Land Grant Lands in Wisconsin

Sheep Ranching in Northern Minnesota

(Continued from page 3)

ear, being Western sheep, were used for rustling for their feed, and between the spots which were not covered with snow, and by scratching the snow off, they did very well until Dec. 10.

The sheep were fed through from Dec. 10 to March 10, a period of exactly ninety days. After March 10 they were turned out and the feed which they got was off the ground. There was still a little snow on the ground, but the early thaws made small green patches and the cured grasses provided all that was necessary.

There is another interesting development in this connection, in referring to winters which there seems to be an impression, are too long and too cold in Northern Minnesota to permit of successful sheep ranching. There is a river right near the shelters which housed the sheep, which do not freeze all winter. The sheep issued from the shelters to the river and drank at will, exercised as much as they desired, and came through the winter without a single loss. It is needless to add, of course, that after spring set in in earnest, and all vegetation again turned green, the sheep continued to develop. A ton of hay entered about five head, and at the time I visited the ranch there was still some of the hay in the stack.

So much, then, for the history of the sheep through the winter, and as to the program of land clearing and development, this is likewise being gone

of herding, and where there is so much territory and so much feed there is a tendency to confine the sheep to a limited area as this forces the sheep to clear up more thoroughly as they go.

Their records of last year, I am told, show that it cost \$40 an acre to clear up the first 100 acres, the labor of putting up the crop being included in that price. The quickest and most economical way of preparing the lands is an intelligent use of dynamite. I was also told that it cost on an average of approximately \$10 per ton to put up and get into shape for winter the wild and tame hay. It would cost materially less were the hay all tame, and if possible, to cover a larger area in one solid tract with a mower and haying machines.

To summarize the plan under which the Northwestern Sheep & Wool Company is operating, no more sheep will be handled on the ranch than winter feed can be provided for, and when I say provided for, I mean grown and put up on the ranch—not bought in the open market.

Movable fences are a second requisite, and open shelters for the sheep to run in and out of, necessary. These are the three principal requisites, but the question might be asked to what purpose and what is there to be gained by these more elaborate preparations for handling sheep than is usually provided for in some of the so-called "grazing areas."



One of the Large Barns Used for Wintering

on a businesslike and comprehensive scale. About 100 acres were cleared up in 1919, and an equal amount, if not more, will be put under the plow in 1920. That means, at least, that the band of sheep can be doubled at least, if not more, in 1921.

There is a very unique relationship between the cultivated land, the wild lands and the sheep industry. While the operator is clearing up and putting under cultivation a given amount of land his sheep are doing two definite things for him. In the first place, they are conditioning themselves for market on the wild lands which are untouched, and in the second place they are clearing up and eating away much of the small shoots and brush, making the land easier to clear, and even though all of the land on which the sheep may be running may not be put under cultivation each year, as the sheep range over this land they are making it more valuable because there is wild land, in the first place, the sheep are converting it into desirable pasture, for wherever sunlight is permitted to reach the ground there you will find clover and unexcised grasses for stock or sheep. Then, as one piece may be cleared up the sheep are moved on and the dynamite and brush men move in, making ready for the plow.

There are 6,497 acres in the Northwestern Sheep & Wool Company's ranch. The objective toward which they are working at this time is to place 1,000 acres under cultivation, as has been demonstrated in this instance, as well as in others, the principal way to handle sheep on the clover lands is to put up movable fences. This eliminates the expense

Greater Cloverland has several advantages which are distinct to itself. In the first place it is a dependable country. A grass crop failure is unknown to Greater Cloverland. A sufficient amount of rainfall, even in the driest years, insures feed for live stock. Lands can be obtained at low prices, considering their fertility and productiveness. During this particular stage in the development of the lands every reasonable concession is given the purchaser to in no way handicap him and so insure his success. The live stock markets of St. Paul and Chicago are within twenty-four and thirty-six hours, respectively, of the ranches themselves. Every live stock man thoroughly appreciates just what this means in dollars and cents, not only in the weight alone, but in the condition also.

At one time in the history of every successful agricultural country there existed a golden opportunity. Those who capitalize the opportunity build up a reserve against old age and misfortune. This is the golden opportunity for the acquiring of lands in Northern Minnesota.

A HUNTED BUG

The leaf hopper is the most hunted "bug" today. The department of entomology in the agricultural colleges of practically every central state, with corps of assistants at the experimental stations, are now on his trail, and they expect to have him vanquished within another season.

The farmer who prepares winter feed for his live stock need not worry about the break in the market next fall.

FARMS—

Real farm homes are building daily in Upper Minnesota and Northwestern Wisconsin.

Wild lands at low prices become fertile agricultural areas in a few years.



You, too, can acquire a farm—a real home—where your labor will represent comfort and independence.

The Minneapolis Association of Commerce has no land to sell. But it wants you to write for information, for suggestions, and for advice. The city's foremost business men—bankers, manufacturers, merchants, and professional men—earnestly desire success for every settler in the territory surrounding the city. They want to help you toward this success.

ADDRESS THE

NORTHWEST DEVELOPMENT COMMITTEE

Civic and Commerce Association

MINNEAPOLIS, MINN.

Proof That Oneida County, Wis. Has Stood the Test

LAST year 25,000 western sheep were pastured in Oneida County. Some of these sheepmen carried their stuff through the winter with such favorable results that they will become permanent ranchers. Others are shipping to Oneida County again this year. The successes last year are the inducements to repeat this year and become permanent settlers.

For information concerning
ranges, address

COUNTY BOARD of SUPERVISORS
Rhineland, Oneida County, Wisconsin

Assembled Acreages in WISCONSIN

Are Now Ready for the Western Grazer or
the Corn Belt Live Stock Farmer

RANCHES OF ANY SIZE

360,000 acres of the best grassed and clover-covered cut-over lands, all watered by streams and lakes, have been assembled in Northern Wisconsin, and will be apportioned out in solid blocks to suit the stockman.

Get your location before the Spring rush is on

Write to the

Milwaukee Association of Commerce

Athletic Club Building, MILWAUKEE, WISCONSIN

A Settlers' Colony Picnic in Wisconsin

(Continued from page 27)



Riding the Norwegian Broncho was One of the Amusements at the Picnic Which was Tried by Old and Young to the Intense Delight of Everybody.

the service truck and bus, and delivered to their homes in the evening or the wee' sma' hours of the following morning if they wanted to stay for the dance.

The good time was not restricted to the Home Lands settlers entirely, but the entire neighborhood was invited to participate, which it did. All day long and most of the night there was a constant stream of automobiles going to and from the picnic grounds.

The only handicap placed upon those not of the Home Lands family was participation in some of the contests in which valuable prizes were offered, but everything else was open and free. And if there was a kiddie on the grounds that did not have an armload of goodies it was for a reason that

generous distributors could not fathom.

Among the most interested spectators and participants in the enjoyment was C. P. Norgard, commissioner of the Wisconsin Department of Agriculture. Mr. Norgard also delivered a principal address of the day, in which he gave the new settlers valuable advice and complimented them upon being so fortunate as to have started their homes under such favorable conditions.

The picnic was a brilliant success, a gathering that typified the spirit of A. L. Mordt, the Home Lands, and the settlers themselves. It was a great together assemblage that fosters good fellowship among neighbors, and one of those affairs that return dividends in more than dollars and cents.



Long Lunch Tables with Seats were Built in the Woods for the Convenience and Comfort of the Settlers.

VON PLATEN LUMBER COMPANY

MANUFACTURERS OF

NORTHERN HARDWOOD

IRON MOUNTAIN, MICH.

A Library in Remote Rural Districts

(Continued from page 22)

youngster. "Those old-timers sure had a lot of excitement." One of the other caretakers said he was glad to have the books to use the children, as the "kids were crazy to have something to read," and the old people are about the same." The boys and girls in isolated rural districts may now be reached with good literature. They are eager to get it and they read it. Nothing but the most favorable reports have been received from every station, and the demand for more books is on the increase. There also are demands for the state's.

These books have surely made life brighter in the remote districts, given enjoyment of evenings that had formerly been burdensome, they are keeping the boys and girls satisfied with their life, and surely if the answer of an Italian girl indicates successful

Americanization propaganda in the foreign settlements, there need be no worry over the youth of alien extraction becoming a good citizen. This 16-year-old daughter of an Italian shoemaker, moved by a spirit of ambition, made three grammar school grades in one year, and when questioned about books in her native language, she promptly replied:

"Maybe the older ones would like books in Italian, but I want to read 'em in American, because I'm an American now, and I want American books. Say, that book called 'New Italy,' by Garland —, was great. I read it all. I know all the places it speaks of. I saw them before we came over here."

The circulating rural library is a success from every viewpoint, and I am sure that no district would part with its library for any consideration.

Fine School Building at Bergland

Many towns in the Upper Peninsula have fine school buildings and well managed schools. Among these the village of Bergland is conspicuous. The school building here is a first class structure containing an auditorium capable of seating four hundred persons, with a fine stage of sufficient space to accommodate a cast of at least twenty performers.

All school activities such as high school plays, debates, literary programs, etc., take place in this auditorium, and it is open freely to local societies such as L. O. T. M., Ladies' and other church organizations, and in fact, to about all other meetings of interest to the public.

As a result, a fine democratic spirit has been built up in that community,

which adds much enjoyment to the social gatherings in that village.

The Bergland High School has been placed on the accredited list of the University of Michigan, a high honor and privilege from which much benefit may be expected.

This fortunate uplift was brought about by the efforts of the very progressive Board of Education of Bergland Township, consisting of Charles Westrick, president; William Brismaster, secretary; Samuel Freed, treasurer; James A. Haskins and J. J. Shoblaske, assisted by the superintendent of schools, William O'Connor, Jr., and it stands as conclusive evidence that the Bergland High School is right on the map educationally, keeping itself abreast of the times and thoroughly up-to-date.



A Farm—Your Own

A farm— your own!

In a Great New Country; where men with less than \$300 have succeeded; where \$1,000 is CAPITAL; where a year or two of consistent work will make you independently successful.

Our Development Department can tell you about these farms and this country; can help you find a location, friends, business connections, banks.

Write for information.

Green Bay Association
of Commerce

Green Bay Wisconsin



CORN, CLOVER AND COW FARMS

Menominee County, Cloverland, and Marinette County, Wisconsin, In the Great Green Empire



FINE FERTILE FARMS NOW PRODUCING AS MANY DOLLARS PER ACRE AS ANY ILLINOIS, INDIANA, OR IOWA LAND WORTH FOUR TIMES THE PRICE.

Since the removal of the timber many lumberman farmers are offering their farms, some with stock, crops, and equipment, giving possession any day at prices that make them a real speculation.

Over 100,000 Acres—Unimproved, stock and farm lands at prices ranging from \$15.00 to \$30.00 per acre.

Send your name for farm lists and beautifully illustrated County Book.

Dept. **MENOMINEE ABSTRACT & LAND CO.**

923 Main St., Box 64, Menominee, Michigan

Cloverland Bargains

RATE: Seven Cents a Word

Copy for the Cloverland Bargains column must be in the office not later than the fifteenth of month preceding publication. Address all want ads to the CLOVERLAND MAGAZINE, Cloverland Bargains Dept., Menominee, Michigan

SHEEP for Cloverland farmers. Will place ewes on shares with reliable farmers and give you an opportunity to start in the sheep business and at the same time make money. If you want to buy sheep, write us for prices. Can arrange satisfactory terms. Cheever Buckbee, Pres. Cloverland Sheep Corp., 719 Ludington St., Escanaba, Mich.

IMPROVED FARM—100 acres, one-half mile of lake shore, good house, stone basement, mile from town on good road. 20 acres cleared, 40 acres fenced, quantity valuable cedar and birch, price includes crop, 10 acres potatoes, 10 of oats. \$6,500. Fred L. Brown, Mercer, Wis.

FOR ADOPTION—11-year old boy, bright and healthy, of good habits. Left without father and mother. Good home, preferably on a farm with respectable people is sought for him. Address communications to the Herald Publishing Co., Bessemer, Mich.

WANT TO HEAR from party having farm for sale, give particulars and lowest price. John J. Black, 177th St., Chippewa Falls, Wis.

WANTED—A competent girl for general housework. Inquire if Mrs. J. J. Black, R. 3, 343 E. Hewitt Ave., Marquette, Mich.

FREE Wisconsin Bulletins—Soil, climate and crops. Inquire if Mrs. J. J. Black, Dept. of Agriculture, Capitol 5, Madison, Wis.

OCONTO COUNTY, WISCONSIN—The Garden Spot of the Universe. If at all interested you should at once become acquainted either by a personal visit in person or correspondence with me relative to my most unexcelled bargains, of either improved or unimproved hardwood timber farm lands. The best quality of productive clay loam soil, with excellent climate conditions produces unfailing big crops of diversified grains, alfalfa, clover, sugar beets, potatoes, fruits. Dairying very highly developed, the best of modern environments by way of church, school, cheese factory, grain and live stock markets, improved farms immediate to hand. At bargain prices thereupon. If interested better act at once. My prices are destined to inebriate in value rapidly. Charles A. Best, Oconto, Wis.

LANDS FOR MIXED FARMING AND GRAZING—In Marquette and Alger County, Mich. Cut-over Hardwood Timber Lands, suitable for General or Special Farming. Stock Raising, etc. Excellent Water. Soil of Rich Sand Loam. Especially Liberal Terms. Also some Choice Tracts in Antrim and Emmet County. Write at once for our Beautiful Illustrated Booklet. Jackson & Tindle, Inc., 503 Niagara Life Bldg., Buffalo, N. Y.

MICHIGAN SNAPS — 120 acres near Houghton. Small clearing. Good soil, no waste land. Only \$2,000. 350 cash. 85 acres close to Ewen. Nice little house and barn. 20 acres cleared. Only \$1,600; \$800 down. Hardy-Ryan Abstract Co., Waukesha, Wisconsin.

TWO MICHIGAN BARGAINS—80 acres. House, barn, clearing. Near Paysonville. \$1,250; \$250 down. 80 acres near Ewen. \$1,200; \$200 cash. Both on roads. Good land. Wm. Hardy, owner, Waukesha, Wisconsin.

FOR SALE—3,500 acres in one block. Seven miles north of Oconto. A low price will be accepted for the whole tract. W. H. Grunert, Green Bay, Wis.

A FINE FARM FOR SALE—230 Acres, one mile west of Carney, Michigan, which has good schools and a creamery. 150 Acres of which land is cleared; has a good house and hay barn and small orchard, plenty of running water all the year. Uncleared land is well suited to grass; the soil is clay loam. There is not an acre of poor land in the farm. Easy terms. Address Box 53, % Cloverland Magazine.

HAY—Write or wire us whenever in need of Clover or Timothy Hay, or Straw, in carload lots. Dafter Hay & Grain Co., Dafter, Michigan.

FOR SALE—250,000 acres of unimproved cut-over lands in tracts to suit purchaser. Prices \$5 to \$15 an acre, terms reasonable. Address J. M. Longyear, Marquette, Mich.

FOR SALE—Choice cut-over hardwood lands, especially adapted to grazing and general farming. Small or large tracts at reasonable prices, terms to suit purchaser. Northwestern Cooperage & Lumber Co., Gladstone, Mich.

FOR SALE—2,000 Acres land, in one block. Excellent soil. Well located. Price and terms attractive. Write Fred A. Roper, Menominee, Michigan.

AGENTS WANTED—If you are making less than \$150 a month, write us today. We have no "get rich quick" plan, but if you are wide awake, honest and willing to work with us and give us at least part of your time, we can offer you an opportunity to make from \$30 to \$50 a week. Just drop us a postal card for complete particulars free. Box 123, Cloverland Magazine.

FOR SALE—One fine 3,200 lb. team, bay geldings, 6 and 7 years old; gentle, experienced farm team, includes heavy farm harness in A-1 condition; price \$450. One grade cow, half Jersey half Guernsey, 8 years old, gentle as a lamb, milks 14 qts. when fresh, freshens in July; price \$150. One 1918 Ford touring car, excellent mechanical condition, tires new; price \$450. One western saddle pony, rein, brown, speedy, full of life, gentle; includes fine western saddle; price \$60. Ten tons A-1 clover hay; 25 tons clover and timothy mixed seed at market price. Address, W. B. Wallace, Lakewood, Wis.

FOR SALE—Yearling bucks for breeding purposes. Shropshires. Apply to Westleigh Farm, Lake Forest, Ill.

FOR SALE—1,000 head of breeding ewes, 2 to 5 years old. These sheep to be sold in lots to suit purchasers. Write for complete further information. John Rachen, Sidnaw, Mich.

SHEEP FOR SALE—500 breeding ewes, 1 to 4 years old. Averaged 34 lbs. wool this season. Lots to suit purchaser. \$10.00 per head. Teams if desired. Vail & Smith, Alvin, Wis.

FOR SALE—160 acres hardwood timber. C. W. Lightfoot, 910 Minn. Ave., Gladstone, Mich.

WAUKESHA FARM FOR SALE—56 acre highly improved farm in Waukesha. 14 miles from Milwaukee, 5 miles from Waukesha. Concrete road will pass farm. 10-Room brick house, hardwood floors and hot water heat, acetylene lighting system in house and barns. Basement barn 36x70, silo 12x26, 2nd in good repair. This location suitable for general farm, dairy, supply or hotel. Price \$14,000. Liberal terms to responsible parties. Address John Casper, R. 4, Waukesha, Wis.

80 A. half under plow, level, good road, R. F. D., phone, school on land, near cheese factory, milk route by door, nice stream, no stone, good buildings, best of soil, right price and easy terms. V. E. Conwell, Ladysmith, Wis.

HAMPSHIRE—Am offering my entire flock of breeding ewes, lambs and yearling rams. Also Hampshire and Guernsey prize ewes of 1918 International. Write for catalog and special prices of carload lots. Mrs. Harney R. Emmons, Elsie, Mich.

FOR SALE—We have tracts of cut-over lands of all sizes for practical stockmen who want to succeed in a permanent manner. Consolidated Lumber Co., Manistique, Mich.

FOR SALE—Upper Peninsula cut-over land, suitable for grazing or general farming. In Alger, Chippewa, Gogebic, Luce, Mackinac and Schoecraft counties. For information write, Land Department, Charcoal Iron Company of America, Marquette, Michigan.

FOR SALE—We own 15,000 acres of cut-over lands in Dickinson, Baraga, Menominee, Iron and Gogebic counties, in the Upper Peninsula of Michigan; 20,000 acres in Forest and Florence counties, Wisconsin. Any size tract on easy terms. J. W. Wells Lumber Co., Menominee, Mich.

FOR SALE—Any part of 100,000 acres stock lands or farms in Michigan or Wisconsin. Write for books and prices. Menominee Abstract & Land Company, Menominee, Mich.

GET OFFICIAL INFORMATION regarding soils, climate and crops of Price County, Wisconsin, from the Representative of the College of Agriculture and the U. S. Department of Agriculture. Improved, partly improved and undeveloped land \$10 to \$100 per acre in Price County. Most rapidly developing live stock, dairy and general farm country in the clover belt of Wisconsin. Write H. J. Rahmlov, County Agricultural Agent, Phillips, Wis.

FOR SALE—Pure bred Guernsey bull, 2½ years old; Sire, Mashier Rockingham, dam, Carlton Chosan. Price, \$200, or will exchange for breeding ewes. Address Herbert Burrows, Emmet P. O., Lake County, Minn.

FOR SALE—Several sections of best cut-over land, near railroad, on good roads, close to Superior, \$20 per acre, easy terms. Also have a few good improved farms for sale. For information, write John W. Lake, Poplar, Wis.

The Minnesota Potato Exchange

(Continued from page 6)

be formed for the express purpose of affiliating, maintains its independent character when it joins the Exchange.

In order to join and do business through the Exchange, however, it must first prove its co-operative character, as defined in the by-laws of the Exchange, and then do three things:

(1) Buy at least one share of stock at \$100 per share;

(2) Give a note for \$500 payable to the Exchange, as collateral and security;

(3) Sign a contract in the form demanded by the directors of the Exchange.

This contract, (discussed below) may require the local to modify its methods and its relations to its own members, in order to secure affiliation with the Exchange.

The form of contract is left to the Board of Directors, except that it shall specify (1) that the local appoints the Exchange as its sales agent, to sell all products which the local may contract and deliver to the Exchange, and (2) that the local agrees to deliver such products to the Exchange for sale at such time and place as may be agreed upon.

Contracts shall run continuously, but any local wishing to withdraw its membership may cancel its contract on July 1st providing it has given at least thirty (30) days' notice prior to that time.

Any local failing to live up to its agreements, or failing or refusing to deliver the pledged products, shall pay to the Exchange liquidated damages as provided in the contract. These damages may be collected from money in the possession of the Exchange due to the local, or shall be a lien upon the local's loan note.

At the time of becoming a member of the Exchange, each local deposits with the Exchange a non-interest-bearing note for \$500, payable on demand, which the Exchange may use as collateral upon which to borrow, and as security for damages, as stated above.

The local will notify the Exchange when it is loading or intends to load a car; the Exchange will sell the shipment (not consign it) and notify the local where to bill the car; the local will bill the car to that point and send bill of lading to the Exchange; the Exchange will attach a sight draft to the bill of lading and send it to the buyer or individual with whom the buyer must settle when the car arrives; when the remittance comes back the Exchange will forward it to the local, minus the stipulated fee of the Exchange; the local will remit to the growers, minus its stipulated fee.

The above would be the case if each shipment were accounted for separately. But the by-laws provide that at the discretion of the directors, the Exchange may pool shipments by combining all shipments of the same grade and quality, over a given period, and averaging the returns. That is,

if the Exchange used each day a separate pooling period, all potatoes of the same grade and quality during the day would be averaged at the same price, and remittances paid to the locals accordingly.

The by-laws do not provide for money to be advanced by the Exchange at the time the shipment is made; or do they state how long the local must wait before getting full return. Both these matters are left to the tail of business practice. (The Minnesota Exchange makes all payments to the locals within three weeks from the date of shipment; in the case of advances on payments the Michigan locals attend to this entirely.) It is customary for the locals of the Minnesota Exchange to issue warehouse receipts, upon which the grower can borrow from the local bank if he desires. Some local banks loan up to 80% of the market price of the potatoes.)

Since the Exchange acts as sales agent for the local, it assumes responsibility for the shipment as soon as it makes the sale and notifies the local where to ship it. From that moment the Exchange carries full responsibility, in caring for the potatoes enroute, in completing the sale, in making collections, in damage claims that may arise, and in all other ways; except that if the product should not be found to be as reported to the Exchange by the locals, the local will be charged accordingly.

In a number of places the by-laws provide for a steady improvement of the potatoes grown. "All potatoes on other farm produce grown by the members of local associations for sale through the Exchange shall be handled and graded in accordance with the rules of the Exchange, subject to inspection as may be established by the Board of Directors." (Art. V, Sec. 2). "He (the manager) shall encourage the production of the varieties of produce best adapted to the climatic area and in greatest demand by the trade. He shall, as may be required by the Board of Directors, conduct packing schools, in order that the growers may become trained in the best methods of grading and packing and labeling their products." (Art. VII, Sec. 1).

Good roads make better farms; better farming makes better communities; better communities make better homes; better homes make better citizens; better citizens mean more happiness for everybody.

A saving of \$3,710 for the farmer of his county in a single month is shown in April record of County Agent A. W. Schmutzer, of Forest County, Wisconsin.

The good old country fair time rolled around again.

There are over 1,000,000 dairy cows in Cloverland.

Choice Cut-Over Hardwood Lands

Especially adapted to grazing and general farming. Located on trunk line railways twelve hours from Chicago markets. For sale, in small or large lots, at reasonable prices terms to suit purchasers. For particulars write

The Northwestern Cooperage & Lumber Co.

GLADSTONE, MICHIGAN

The Keweenaw Land Association Ltd.

— OFFERS —

Cutover Lands

in Chippewa, Dickinson,
Iron, Gogebic, Ontonagon
and Houghton Counties
in the Upper Peninsula of
Michigan in tracts to suit

Clay loam, sandy clay loam, sand loam and sand
soils at \$5.00 to \$15.00 per acre.
Generally well watered.

J.M. LONGYEAR, Agent, Marquette, Mich.
D. S. DEAN, Treas., 87 Milk St., Boston, Mass.

Fifty Counties in Upper Michigan Have Millions of Acres of Idle Lands

CLOVERLAND is now on the map as the greatest live stock and dairy district in the United States today—it is the last frontier of America. Are you going to grasp the opportunity now or wait until prices begin advancing and eventually become prohibitive for the homeseeker or careful investor?

**Inquire Now;
Prices Are Low**

The Public Domain Commission of Michigan

WILLIAM KELLY, *Chairman*, Member Board of Control, College of Mines;
JUNIUS E. BEAL, Board of Regents, University of Michigan;
THOMAS E. JOHNSON, Superintendent of Public Instruction;
COLEMAN C. VAUGHAN, Secretary of State; ORAMEL B. FULLER, Auditor General;
WILLIAM H. WALLACE, State Board of Agriculture;
GEORGE L. LUSK, Secretary Commission and Commissioner of Immigration

Excellent Farming and Grazing

LANDS

For Sale in Alger, Marquette, Luce
and Chippewa Counties, Michigan

Cut-over Hardwood Lands. Good Soil. Fine Water.
Accessible by Railroads and Good Highways.
Near Settled Communities.

Prices \$7.50 per acre
and up ————— **Easy Terms**

THE CLEVELAND-CLIFFS IRON COMPANY
Land Department NEGAUNEE, MICH.

A DEPENDABLE RANGE

is the goal of every stockman. With a dependable range he feels sure of success and secure against future adversity. A tract of select, cut-over land in Cloverland offers stockmen this opportunity.

Tracts to Suit Needs

We have several choice ranges among our holdings which we will sell to practical stockmen on terms that will be to his advantage.

CONSOLIDATED LUMBER CO.
MANISTIQUE, MICHIGAN

"In the Heart of Cloverland"



General Motors Trucks

A PRODUCT OF
THE GENERAL MOTORS CORPORATION

Built in All Sizes from $\frac{3}{4}$ -1 Ton to 5 Ton Capacity



At Eau Claire, Wis.

A couple of 2 ton GMC's
hauling canned peas for
the Lange Canning Co.

It is worthy of note that large,
successful companies usual-
ly select GMC trucks.

Lowest final cost is the
reason.

At Menasha, Wis.

A thirty passenger bus
on a 2 ton GMC chassis.

It is owned by the Lakeside
Paper Company and is used
to transport their employees
to and from work.

Equipped with big, pneu-
matic tires, it is usable every
day in the year.



These Cloverland Dealers will be glad to tell you about GMC Motor Trucks

Union Auto Co., Eau Claire, Wis.
Elsen & Philips, La Crosse, Wis.
Service Sales Co., Green Bay, Wis.
A. G. Jennings Motor Sales, New London, Wis.
Highway Service Garage, Marathon, Wis.
J. T. McCann Co., Appleton, Wis.
Cloverland Garage & Machine Works, Mani-
tique, Mich.

Merrill-Buick Co., Merrill, Wis.
A. C. Homan Auto Co., Menasha, Wis.
Hathaway-Buick Co., Oshkosh, Wis.
Munising Motor Co., Munising, Mich.
V. L. Lipsett, Pickford, Mich.
Austin Lipsett, Sault Ste. Marie, Mich.
Larson & Asplund, Ashland, Wis.

J. A. Rummele Auto Co., Manitowoc, Wis.
Raab Motor Co., Sheboygan, Wis.
Johnson Motor Co., Fond du Lac, Wis.
Auto Supply Co., Plymouth, Wis.
Farm Power & Equipment Co., Lancaster, Wis.
Graham & Pecard, Bessemer, Mich.
W. F. Beilke, Wausau, Wis.
Bingham Motors Co., Janesville, Wis.

OR WRITE TO

GENERAL MOTORS TRUCK COMPANY OF WISCONSIN : Milwaukee, Wis.

DISTRIBUTORS FOR WISCONSIN AND UPPER MICHIGAN

A Twelve Million Dollar Endorsement For Cloverland



J. OGDEN ARMOUR

TO THE EDITOR, CLOVERLAND MAGAZINE:

I BELIEVE in the agricultural and live stock possibilities of "Greater Cloverland," that rich belt comprising Northern Michigan, Northern Wisconsin and Northeastern Minnesota, with its thirty million acres of available cut-over, or former timber lands.

This belief is shared with enthusiasm by my business associates. It is reflected in the recent completion and operation of Armour & Company's new packing plant at South St. Paul, representing an investment of twelve million dollars.

My investigation in November, 1919, showed a remarkable development activity in "Greater Cloverland," both in the taking up of small farm holdings and the movement to this section of thousands of cattle and sheep from less favored ranges.

"Cloverland," the well named "Last Frontier," is a place of opportunity for the hustler, the working, modern farmer; a place of vigorous climate, rich and productive soil, and all of it within a few hours by rail of the great central and northwestern markets.

Rich as have been its yields of timber and mineral, and almost exhaustless as they seem today, I hold with those who believe that the greatest wealth of this new Northwest is in its possibilities for agriculture and live stock, already developing in every county.

(Signed) J. OGDEN ARMOUR,
President of Armour & Company.

Pillsbury's Family of Foods



To the women of Cloverland, we bring Pillsbury's Family of Foods—a select family of highest-quality foods. All are made by the millers of Pillsbury's Best, the good old reliable flour you know so well—the flour your mother used before you. This—Pillsbury quality—is your guarantee of satisfaction.

Pillsbury's Best Flour

The first member of the family. Women everywhere have been making good, wholesome bread and light tender, pastry with Pillsbury's Best Flour for over 50 years. It's very economical, too.

Pillsbury's Wheat Cereal

Made from the creamy-white hearts of selected wheat; a dainty yet substantial breakfast food. So easily digested that infants thrive on it—so nourishing that it sustains the hardest worker.

Pillsbury's Health Bran

Not ordinary bran, but a thoroughly cleaned and sterilized large-flake bran, put up in air tight, sanitary packages. A wholesome food and a splendid natural laxative—makes delicious bran bread, cookies and muffins.

Pillsbury's Pancake Flour

The new way to make the best pancakes you have ever tasted—just add water to Pillsbury's Pancake Flour, beat thoroughly and bake on a hot griddle. You do not need eggs, milk or baking powder.

Every member of Pillsbury's Family of Foods is guaranteed. You'll find them at your grocer's. Ask for "Pillsbury's".

Pillsbury Flour Mills Company
MINNEAPOLIS, MINNESOTA

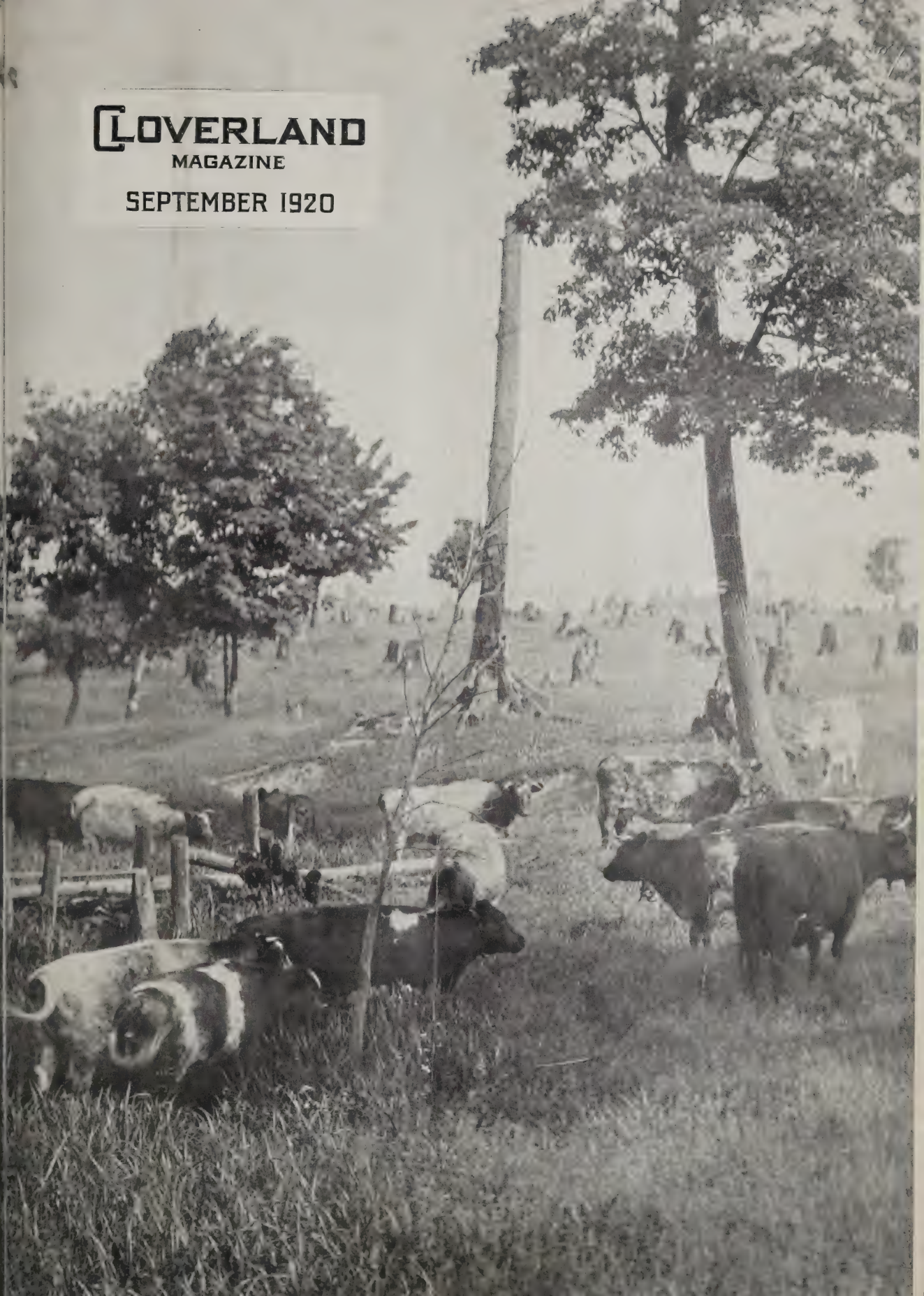
Pillsbury's

FAMILY OF FOODS

COVERLAND

MAGAZINE

SEPTEMBER 1920



\$200 in Gold Offered for a New Name for Golden Cup Coffee

*The Fastest Selling
Coffee in Cloverland*

We have found that one of the coffee houses in another part of the country has a prior right to the use of the name "Gold Cup" Coffee, with which name the U. S. patent office considers the name "Golden Cup" conflicts. Our use of the label, "Golden Cup" Coffee, has come to be the best selling and the most popular high grade Coffee in this part of the Northwest.

We desire to change the name at once to a new title which we can copyright.

The change, however, will be in name only.

The quality of Golden Cup, under its new name, will be the same.

We want to get, if possible, our new name from those who know and use and appreciate the merits of our "Golden Cup" Brand of Coffee, and so we now offer cash prizes of \$200 in gold in a sixty-day contest, opening August 15th, 1920, and ending October 15th, 1920, and open to every one without any restrictions whatsoever.

Here are the simple rules and conditions governing our offer:

1st—Any one anywhere may send in as many suggestions as desired for this new label name.

2nd—Whether we use or accept any names submitted, the prizes will be awarded by the judges and paid

in gold by us, and we will retain the right to use the names for which prizes are awarded on any goods packed or manufactured by the Carpenter Cook Company, if open to priority in the U. S. patent office.

3rd—The judges will award the prizes. We will pay the prizes on or before Oct. 30th, simply reserving the right to use any prize winning name or any other name we may select inside or outside of the contest.

4th—The contest to be decided by three judges:

ROGER M. ANDREWS, Publisher Cloverland Magazine;

WM. WEBB HARMON, Cashier Lumbermen's National Bank, Menominee;

GEO. W. ROWELL, JR., Advertising Manager, Lloyd Manufacturing Co.

Fill in attached form and mail to Coffee Contest Manager, Carpenter Cook Company, Menominee, Michigan, or hand to your grocer and ask him to send it to us. Send as many suggestions as you please, just so they are mailed to us on or before Sept. 30, 1920. But do not wait unnecessarily, for the first suggestions will naturally have the best chance, for priority of receipt will be considered where duplicate suggestions are received.

CUT OUT THE COUPON

Fill in and mail today. Send in as many suggestions as you please, either on this form or by letter. Please do not use post-cards.

COFFEE CONTEST MANAGER,
Carpenter Cook Company,
Menominee, Michigan.

I suggest the following names for your use in place of the name "GOLDEN CUP" Coffee:

.....
.....
.....

Signed, (Name)

(Mail Address)

Date.....

1st Prize \$50 in Gold

2nd Prize \$25 in Gold

3rd Prize \$15 in Gold

4th Prize \$10 in Gold

And 20 Prizes of \$5 in Gold Each.

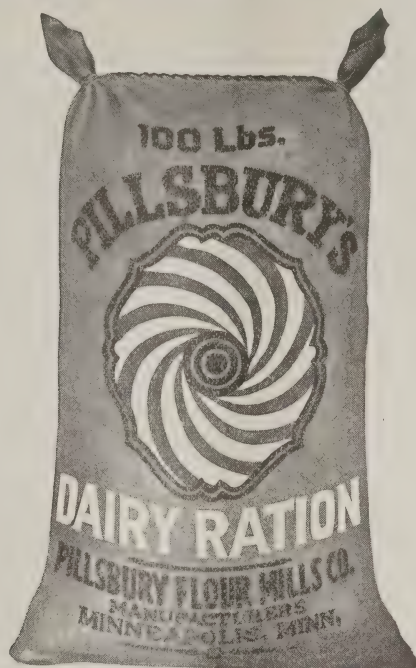
We invite the boys and girls, the youths and grown-ups, to enter this contest early and often. Your "Golden Cup" Coffee will taste the same and be the same under its new name. We cordially invite our friends to help us select this new name, and share the \$200 in cash prizes which we offer.

CARPENTER COOK COMPANY

"Golden Cup" Coffee is the Fastest Selling Coffee in Greater Cloverland.

MENOMINEE, MICHIGAN

A Steady, Consistent Producer



Pillsbury's Dairy Ration

To Maintain Maximum Production

Forced feeding for short periods has produced remarkable milk records, but it is the long time, day-in-and-day-out results that count. The dairy cow must have the right kind of feed if she is to produce consistently. Her feed must not only bring her into a full flow of milk, but it must keep her there during the entire lactation period. Production must be kept up to the highest point of which she is capable. That is the only way to bring out her full value.

Feed Must Protect Health of Cow

To-day expert feeders realize that in order to obtain continued high production over long periods, the ration of the dairy cow must contain sufficient mineral matter to safeguard her health. In formulating Pillsbury's Dairy Ration we have provided for the health of the cow. For perhaps the first time, the proper balance of protein, carbohydrates and fats has been combined with sufficient mineral matter to replace wasted tissues and maintain maximum milk yield. Read our guarantee.

Pillsbury's Dairy Ration Will Maintain Every Cow At Maximum Milk Flow Throughout Lactation Period

Cows Like It!

Pillsbury's Dairy Ration is palatable. The cows like it. We have yet to see the cow that wouldn't clean up a full feeding of Pillsbury's Dairy Ration the first time it was offered.

No Filler!

There is absolutely no filler in Pillsbury's Dairy Ration. It is a clean, honest, dependable feed, with 79.2% digestible nutrients. It contains no molasses or disguised roughage.

Economical!

The eight ingredients contained in Pillsbury's Dairy Ration were selected for their feeding value alone. Every one is high-grade. Yet its cost is no greater than that of other feeds, and you could not begin to mix the same ingredients yourself at a cost as low as Pillsbury's, and

You Can Always Get Pillsbury's.

Pillsbury's Dairy Ration

Contains:

Ground Oats, Wheat Bran, Hominy Feed, Linseed Meal, Standard Middlings, Corn Gluten, Cotton Seed Meal, Mineral Salts, and nothing else.

Your Feed Dealer Can Supply You,
or write—

COMMERCIAL FEED DEPARTMENT

Pillsbury Flour Mills Company

MINNEAPOLIS, MINNESOTA

Guaranteed Analysis:

Crude Protein	19%
Crude Fat	4%
Crude Fibre	11%
Carbohydrates	50%
Mineral Matter	6%



¶ A texture that is a real achievement in the science of modern paper making commends Northern Tissue to you. The utmost skill of the industry has been taxed that you may have this finer bathroom necessity.

¶ Call it by any other name and it's not Northern Tissue—a more sanitary and economical toilet paper. At your dealer's now. Made in Green Bay, Wisconsin, by the Northern Paper Mills—also manufacturers of fine paper towels, for shops, offices and kitchens.



CLOVERLAND **MAGAZINE**

REGISTRATION OF TITLE APPLIED FOR TO U. S. PATENT OFFICE

Published Every Month at Menominee, Michigan

Vol. XV No. 1

MENOMINEE, MICHIGAN, SEPTEMBER, 1920

\$1.00 A YEAR, 10c THE COPY

The Making of a Great Industry

By FRANK D. TOMSON, Editor of "The Shorthorn in America"

WHEN the lumberman removed the great forests of the North, a performance accompanied by many expressions of misgivings as to the future, they made way for a still greater industry—that of the live stock husbandry. Nature has been very kind to that vast region, for the snow comes early, as a rule, and spreads its protecting covering of accumulated thickness throughout the winter months. The grass roots are thus protected and, when the snows melt away under the early spring sun, the grasses are fresh and succulent. They have kept so, to an extent, all through the winter.

With this blanket of snow, great areas of the soil do not freeze deep; whereas, far to the southward where the snows are scant and remain but a short space of time the ground often freezes from one to our or five feet deep. The melting of these northern snows goes on to an extent, throughout the winter and the moisture finds its way down into the soil. It is an ideal situation for grass production. Little wonder, then, that this extensive area is recognized as the Cloverland, though I have observed timothy, blue grass and various other grasses grown in equal luxuriance.

Wherever grass grows in abundance live stock finds its most favorable habitat. So there is growing up, in this one-time lumber country, an industry of much greater proportions and more vital importance to the welfare of the country than that which flourished in the old saw-mill days.

This transition is not dissimilar from that back in the old Virginia and Ohio country, where improved cattle first found their way to America, and in those countries beef-making has been carried on quite continuously and profitably since that early date, more than a century ago. Beef-making and dairying under the variable conditions presented in your country have very interesting and well-defined advantages. I have visited various breeding establishments where the industry has been carried on on rather an extensive basis, and have noted the economy due to the extensive production of the grasses upon which the industry is based. The coming of the silo has played its useful part and the extensive growing of peas for canning purposes has, through the by-product, increased the ration, in addition to the heavy yields of field peas.

In your country, as in almost all agricultural



Clipper Anoka 9th, Bred at Anoka Farms. She Sold as a Calf for \$2,500.

countries, one finds few men operating the land who are specialists and comparatively few farms that lend themselves to specialization. The raising of live stock has its best opportunity in mak-

ing the most of every phase of it. Beef raising involves, to an extent, the use of the good milking cow and successful dairying involves the reliance, to an extent, on the demand for beef because the calves must be sold and the cows that do not yield a profit at the pail must also find their way to the butchers. And it is to the advantage of the owner if these cows produce calves that attract the patronage of the butcher, at profitable prices, and that they fatten themselves and possess sufficient beef quality to command an adequate price when they themselves are sent to the slaughter.

It is very largely the combination of beef and milk that insures the best returns to the owner. Always the good milking cow is the best and most reliable producer. That is an established fact and however one may be inclined to the production of beef, he cannot afford to ignore the relation of the good milking dam to the beef qualities of her steer. Just as the Shorthorn came early into the Ohio and Virginia country, in fact, very soon after the Revolutionary War, so Shorthorn cattle came early into the North country, following the lumbermen.

Since the first limited shipment came to America, the Shorthorn has been closely identified with agricultural achievement. There seems never to have been a time when the Shorthorn was not making progress and this progress has a very close relation to the progress of agriculture. So it is that in the North country, in the "cut-over" districts, where the grasses have spread amazingly and yielded abundantly, the Shorthorn grows always in favor. The reason is not far to see, for the Shorthorn is distinctly the farmers' bovine reliance. There is the combination of beef and milk, just referred to, that plays its useful part, always, in mixed husbandry. Many loads of heavy, well-bred, well-finished, red and roan steers go annually out of this country down to the Chicago market, and to other markets, and find favor with the buyers.

There is an extensive Eastern trade that patronizes the Chicago packing industry that requires that the beef carcasses be Shorthorn carcasses. This discrimination is based on long experience and a recognition of the quality of Shorthorn beef.

There is a feature in which the Shorthorn has always found favor. That is the tendency to put on weight and flesh of the best quality. Only recently



Probably the Best Known Shorthorn Herd in America, Anoka Farms, Wisconsin, Established Prior to 1870

CLOVERLAND MAGAZINE

a load of Shorthorn steers went onto the Omaha market showing the heaviest weights received at that market for a twelve-month period, and only exceeded by a load from the same herd the year before. This recent shipment averaged in weight 1,684 pounds and had the quality to command the top of the market, \$16.25 per hundred weight. With this excess of weight, combined with the quality that commands the high price of the market, the Shorthorn has a double advantage.

The year's record, at this writing, on the Chicago market, is that of a bunch of Shorthorn yearling steers having the remarkable weight of 1,076 pounds, selling for 17.25 per hundred weight.

Over in Michigan, at Tawas City, C. H. Prescott & Sons, gentlemen of much enterprise, carry on an extensive live stock business on stump lands. They maintain along with this extensive business a herd of pure-bred registered Shorthorns and the representatives which they have sent down to the International at Chicago, and the National Shorthorn Congress, have entered into competition with the best breed sent forward, from both the United States and Canada, and have been singularly successful in carrying off the most coveted prizes. Then, when their representatives were exposed for sale in the auctions in connection with both these great events, the breeders of other sections have paid long prices for those Michigan "cut-over" land products. Prescott & Sons have had the good judgment to put in a foundation that represented a high standard and as a result of the prevailing conditions have been able to improve upon this foundation.

The best known Shorthorn herd, probably, in North America, the Anoka herd, has been established in Wisconsin since far back in the 70's, following the wake of the lumbermen.

Macmillan & Macmillan, Lodi, Wisconsin, maintain one of the outstanding herds of Shorthorns of the country, as do Reynolds Brothers and Herr Brothers, also of Lodi.

In the "cut-over" country of Minnesota, the Meadow Lawn herd, at St. Cloud has been known internationally for many years and various other high-class herds are established throughout the Minnesota country. Perhaps your readers will be interested in knowing that in Michigan, Minnesota and Wisconsin there are to-day over 4,800 breeders of pure-bred registered Shorthorns. A suggestion of the advance the breed is making in your country.



Prescott & Sons, Tawas City, Mich., Have Raised Many Prize Winners at International and National Shows. They Pasture on Cut-over Land, as Shown in the Picture. The Cover for This Number of Cloverland Magazine Was Made from a Picture Taken on This Great Live Stock Farm.

It is something more than a coincidence that Shorthorns have taken their place in this grassy country. It is a result, in part, of the previous acquaintance which those who operate the land have of the merits of this resourceful breed, and recognizing these merits, it was but natural that the

Shorthorn should come early to play its useful, prosperous part in the development of this country. Not every man has employed Shorthorns, for there are those who were trained in dairying where strictly dairy herds have been employed and others, for one reason or another, have pinned

in one Shorthorn steer weighing 1,774 pounds, a weight little less than phenomenal, considering that he was range-bred and grass-fed.

Out in California, last year, the Pacheco Ranch marketed 150 three-year old steers, strictly grass-fed for they had never tasted grain nor hay, except that at weaning time hay was provided until the calves would go quietly to the pastures without their dams. These 150 steers averaged in weight 1,515 pounds and sold for the highest price that any considerable shipmen brought last year in that state. They were taken by the Eastern trade. They grazed winter and summer on the rolling hills that border the Santa Clara Valley.

These results are obtained because worthy Shorthorn bulls have been used. It is related that a corn belt feeder approached a cattleman in Florida, where the feeder was recreating a few years ago, and informed him that he would like to buy several carloads of 3-year-old steers that would weigh around 900 pounds. The Florida native squinted his eyes for an instant and replied, "About the nearest I could come to that would be a few carloads of 9 year-olds that would weigh about 300 pounds."

This incident indicates a lack of the use of improved blood among the native cattle down in Florida. Be it said to the credit of the Florida stock men that there is now a well-defined effort being made to establish herds of improved types and to encourage among the small plantation owners the use of pure-bred sires. The Shorthorn has played its part in that country and all through the South also.

Those who are familiar with the natural advantages possessed in the grass-



Shorthorns on the MacMillan & MacMillan Meadow View Farm, Lodi, Wis.



A Part of the Meadow Lawn Farm, St. Cloud, Minn., the Property of Leslie Smith & Sons

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Door County—the Cherry Land of Wisconsin

By RAY J. SCHUKNECHT, Secretary, Sturgeon Bay Commercial Club



2,500 Cherry Pickers Were Employed to Harvest the Door County Crop This Year

DOOR County, Wisconsin, "The California of the North," has become in the last decade the largest and most promising fruit region of the entire state. The Cherry-land of Wisconsin is always brought to mind whenever Sturgeon Bay or Door County is mentioned.

The Door Peninsula is a narrow strip of land eighteen miles at the base and tapering to four miles at the extreme end that juts out into Lake Michigan from the mainland and separates Green Bay from the lake. The rugged shore of the peninsula, a long green bay reveals the rock-bound coast of Maine for scenic beauty and attractiveness. As a result the county has become noted for two things: the largest summer resort section of the state and the home of the greatest cherry orchards in the country. Door County is specially suited to fruit growing for two reasons: Soil and climate.

The presence of large quantities of lime in the soil, the peninsula being overlaid with Niagara limestone, gives it the elements needed to produce perfect, highly colored fruit of good flavor and excellent keeping qualities. In the spring the close proximity of the waters of Lake Michigan and the bay modify the climate and retard the development of the buds, thus preventing the trees from blossoming until danger from late frosts is past. In the spring of 1910 when a late frost most completely destroyed the fruit crop throughout the middle west and even far south there was no damage from frost in Door County and a full crop of fruit was raised.

In the fall of the year the presence of these large bodies of water also helps the air keeping frosts away until late in the season, giving the trees plenty of time to mature the new growth and form fruit buds for the next season's fruiting.

In any other part of Wisconsin, and in fact in few parts of the country do the climatic and soil conditions exist in such perfection for fruit growing. It is worthy of note that the average growing season of Door County is about 160 days and is longer by sixteen days than the famous Valley of the North Yakima, Washington. The growing season in Door County extends from about May 1 to Oct. 10. The mean annual temperature of Door County is 43 degrees, which is four degrees cooler in summer, and in winter four degrees warmer than inland points, two degrees less than Milwaukee, four degrees less than Rochester, N. Y., five degrees less than Montrose, Colo., seven degrees less than North Yakima, Wash., ten degrees less than Astoria, Ore., in the famous Umpqua valley.

Door County winters are mild (22 degrees), somewhat moister than elsewhere in the state, resembling winters on the coast of Maine, or Eastern Michigan; the springs (42 degrees) are recorded and cool, like those along the coast of New England and British Columbia; the summers (67 degrees) are mild and pleasant, averaging over (2 degrees less) than the Wisconsin or the Rock River Valleys and (4 degrees cooler) than the Mississippi Valley; all the autumns (50 degrees) are warmer than further west, the temperature being about the same as that

of Eastern Massachusetts, the Hudson Valley or the Lake Ontario shore of New York.

Although the first cherry orchards were planted as early as 1836 the cherry growing industry was not put on a commercial basis until 1910 when the first large orchard was planted. In that year a number of stock companies were organized and several hundred acres were planted to cherry trees. Interest in the cherry industry was aroused and the next spring over 1,000 acres were planted. Cherry culture had become an established industry, and by the close of 1912 Door County had approximately 3,500 acres of cherry trees.

Although phenomenal yields are not the rule in Door County they are not exceptional. During the last year nineteen trees fifteen years old produced 104 crates of cherries. Nine and ten year old trees very often produce between six and six and one-half sixteen quart crates of fruit. An eighteen year old tree produces as high as ten and fourteen crates of cherries. The following table shows the production of a seven acre tract of trees eleven years old in 1915, owned by D. E.ingham of Sturgeon Bay:

1915	1,400 crates
1916	1,600 "
1917	1,300 "
1918	1,400 "
1919	2,300 "
1920	2,000 "

Twelve thousand crates is the total for 700 trees in six consecutive years. The decrease in 1918 was due to the sharp cold the previous winter, when the weather changed almost in a week from mild autumn to extreme winter. Due to the change the fruit buds were damaged and the trees did not maintain their normal wood growth, but with vigorous pruning and other improved methods the trees are withstanding far greater extremes of cold than formerly.

The results of Wallace Lawrence with an eleven-acre orchard are shown in the following figures:

1918	1,800 crates
1919	2,350 crates
1920	2,400 crates

Of the total orchard three acres have trees 24 years old and the eight acres contain trees ranging from ten to sixteen years old. There are approximately 1,100 trees in the entire field.

Practically the entire cherry crop is handled by the Door County Fruit growers' Union, an organization formed for the purpose of preventing competitive buying and selling between the fruit growers and the commission men. The fruit organization this year handled 186,037 sixteen-quart crates of cherries.

Only two varieties of cherries are grown in Door County: Early Richmond and Montmorencies. There were 81,655 cases of Early Richmonds

and 104,382 cases of Montmorencies picked this year. The total crop is short by about 20,000 cases of the yield of 1919. There were 49,125 cases shipped fresh and 136,912 cases handled by the canning factory.

The cannery factory runs practically day and night when the season is on. All fruit put up by the cannery is pitted. A continuous belt system saves a great deal of labor, the cans being taken from the freight car, washed, run through the plant, filled and steamed, and run into the warehouse without having been touched by a single hand. This permits

intensive production as shown by the handling of 177 tons or 30 carloads of fruit in one day of eighteen hours, the largest day's run of the season.

The canning factory turned out 1,286,688 No. 2 cans and 304,536 No. 10 cans. The No. 2 can weighs 14 ounces and the No. 10 can weighs six pounds. According to the accepted weight per case as standard, the total cherry crop was 2,750 tons. A graphic illustration of all No. 2 cans setting side by side would show a line 72 miles long.

The Door County peninsula has another advantage in being close to Chicago, Milwaukee, Minneapolis, St. Paul and other large cities of the Central West, which provide a market for the fresh fruit that is shipped annually. The canned fruit is marketed in more than half the states of the Union, about 50 per cent of the total output going to the southwestern states of Oklahoma, Arkansas and Kansas.

The cherry crop will bring to the growers over \$600,000 this year. The net returns will be about \$2.50 per case.

One of the dangers confronting every fruit section is that when the fruit is ripe there will be no one to pick it. Sturgeon Bay is fortunate in being the only large fruit region in Wisconsin. To harvest the enormous crop of cherries of Door County a miniature army of pickers is needed. A large percentage of the pickers are engaged by the Cherry Harvesters' Association.

A flat price of 2 1/2 cents per quart was established with the following bonuses: For 60 quarts a day 15 cents; for 75 quarts 25 cents; for 100 quarts 50 cents; for 125 quarts 65 cents; for 150 quarts 75 cents; for 175 quarts 85 cents; and for 200 quarts a bonus of \$1.00. An average of over 75 quarts was maintained and the record pick for one day was around 225 quarts. Besides having a good summer vacation the boys and girls are able to make some money.

Approximately 2,500 pickers were brought into Door County for the 1920 season. Of this number 700 were boys in Y. M. C. A. camps brought from Milwaukee and from every city in the Fox River Valley. One camp of 125 pickers was composed of college girls and school teachers who gathered the crop of the Peninsula Fruit Farm. The Oneida Indian Reservation sends a camp of 100 each year to help harvest the cherries of the Co-operative Orchard Company. The schools of Milwaukee sent a delegation of several hundred boys to do the picking for the Sturgeon Bay Fruit Company. It is



A Door County Orchard in Blossom

(Continued on page 46)

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The Dairy Demonstration



The Sheep Demonstration

U. P. "Round-up" of Cloverland Farmers

By HENRY A. PERRY

BETTER farm methods, better crops, better live stock, will be the outcome of the Farmers' Round-up at the Upper Peninsula Experiment Station, at Chatham, Michigan, August 11 and 12.

This is a far reaching declaration but it is warranted by the size of the crowds that visited the station on these days, and more particularly by the intense interest shown by several thousand people in all phases of the work done at the station. And still greater assurance that the big Round-up will accomplish definite results in all departments of the farm, especially in better live stock, may be found in the activity of the boys of Cloverland in agriculture and live stock production, which was so strongly reflected by the hundred club members camped on the grounds for three days and the part they took in study and live stock judging.

In the number of visitors present the Round-up was the biggest agricultural affair ever held in the Upper Peninsula of Michigan. More than 3,000 farmers and their families attended the demonstrations on the second day of the picnic, enjoyed the big barbecue dinner provided by Alger county, and listened to the best program of speaking that was ever arranged for a gathering of farmers in northern Michigan. Considering that a cold rain accompanied day-break and continued nearly all forenoon, the attendance was remarkable. Had the weather been inviting, it is conceded that the attendance would have been around 5,000.

In its relation to better farming, the picnic was the most important of any ever held in the entire state of Michigan, because the results will be more far-reaching in the development of a great agricultural territory that has laid almost dormant than any demonstration could hope to accomplish in a region requiring less development efforts.

A new era in the Upper Peninsula of Michigan dawned with this Round-up. The conduct of farm boys and girls within the next year, and in years to come will vouch for it. Select one hundred red-blooded, ambitious farmer boys from the fifteen counties of Upper Michigan who have been taking such keen interest in club work that they have commanded the attention of their neighborhood, give them a chance to grasp the full significance of better agriculture and better live stock, permit them to hear experts on these subjects and witness demonstrations, and then hold out an opportunity to actually take part in a live stock judging contest with young pure bred stock for prizes, and there is the making of one hundred highly successful farmers. Their efforts and activities will be copied by other boys, their knowledge will be

imparted to others while it is applied in their own behalf, and many fathers will receive inspiration from their sons to go in for better farming and better live stock.

Dean Shaw, of Michigan Agricultural College, is a believer in boys, and he has a great champion of his belief in D. L. McMillan, superintendent of the Upper Peninsula Experiment

Station, who planned this elaborate boys' camp and program at the Round-up. And the men at the station, the county agents, the club leaders, all have shown similar interest in the boys of Cloverland. The Round-up could almost be termed a "boy affair," on account of the wide-spread interest in their live stock judging contest in advance of the picnic and

the close attention given it by many of the crowd on the grounds.

The judging teams that competed in the contest have been months, at perhaps two or three years in its making. The rounding out process for the contest required tireless energy and effort on the part of county agents and club leaders. But the work will pay big dividends, the biggest dividends of any investment, state money and expert advice ever made in the Upper Peninsula.

And what is said of the boys of Cloverland may also be said of the girls of Cloverland, for they were at the Round-up too, and took an interest in household economics and instructions equal to that of the boys in out-door farm life.

Alger county, which has the honor of claiming the experiment station, asked permission to be host at a barbecue dinner on the last day of the picnic. Permission was granted, and this is how Alger county entertained.

First, the services of J. D. Deagon, chef at the Northern Michigan penitentiary at Marquette, and famed for his barbecues at big picnics and out-door gatherings, were obtained. With Mr. Deagon came Ray Brotherton, styled as a "barbecue engineer," because of the many devices he has built to scientifically cook large portions out of doors and roast whole beef carcasses. One of his inventions is a mechanical roaster, modern in the extreme but doing an ox to more delicious, juicy brown than the "good old-fashion way." This device consists of a long heavy eight-inch pipe, thrust through the ox lengthwise, and mounted at each end on a mine drill tripod. A gasoline engine is then geared to one end of the pipe with pulleys and belt, so adjusted that as the engine runs the pipe will turn at any speed required. This keeps the ox slowly revolving over the fire. Mr. Brotherton has found that about five revolutions a minute over a good hot pit obtains the best results, toasting the outer meat to a crisp brown and sealing in all the meat juices. The engine keeps the ox slowly revolving night and day, until it is done.

No better out-door banquet was ever served than that prepared by Chef Deagon. More than fifty women and a corps of girls were ready to serve when dinner was announced, and the large crowd was handled with the dispatch of a well organized catering establishment.

Several long serving tables were provided, each with a supply of the good things to eat. Guests were first given a maple wood plate, knife, fork and spoon and tin cup, and then marched in single file along the serving tables each receiving a liberal cut of the roast ox, a big portion of mashed potatoes, baked pork and beans, an ear of green corn, all the buttered bread requested, and a cup of coffee with



New Power Device That Revolves the Whole Ox Over the Hot Pit at the Rate of Five Revolutions a Minute.



More Than 400 Automobiles Were Closely Parked in This Manner

CLOVERLAND MAGAZINE

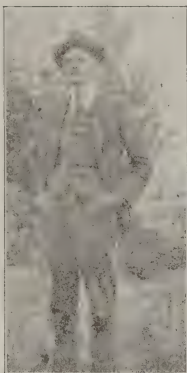
cream and sugar. Ice cream was served for dessert.

The dinner gave a fairly accurate estimate of the size of the crowd. The 2,500 knives, forks and spoons were all given out, and more than half of this number had to be washed before all the guests were served. On this basis more than 3,000 persons ate dinner in the grove at the station, and several groups were eating lunch brought from home. As no one could use more than one knife, fork and spoon at a picnic dinner, there is no questioning the estimate that more than 3,000 persons attended the Round-up, and in all probability the number was nearer 3,500.

The first day of the Round-up was given over to conferences of county agents and instructors from Michigan Agricultural College Club leaders, some demonstration agents, members of the State Board of Agriculture and extension workers. About 400 farmers, specially interested in work at the station, spent the day visiting the experiment plots and viewing the live stock. The inspection of live stock and field crops was directed by Superintendent McMillan; experimental plots, by J. W. Putnam, crops experimenter; potato plots, by J. E. Kotila, potato disease specialist.

In the afternoon a meeting for county agents and farmers was held in the town hall at Chatham, adjoining the station. J. W. Weston, county agent leader in the Upper Peninsula, opened the discussion with an address on "Features of work in the Upper Peninsula regarding station and extension." Following were the subjects discussed: "Experience of County Farm Bureau Organization Work," Irving Kirshman and E. L. Runzie; "Co-operative Marketing in Iron County," D. C. Long; "Main Problems of the State Farm Bureau in Marquette County," L. R. Walker; "Main Problems of the State Farm Bureau in Delta County," B. P. Pattison; "Problems of the State Farm Bureau in Our County," C. E. Gunderson, C. P. Johnson and R. H. Cameron; "County Potato Organization on County-wide Basis," C. P. Pressley, Karl H. Miller and L. V. Benjamin; "Educational and Financial Program on a Basis of Farm Bureau Organization," Dr. Eben Mumford; "The County Agent and the Farm Bureau," Director R. J. Baldwin.

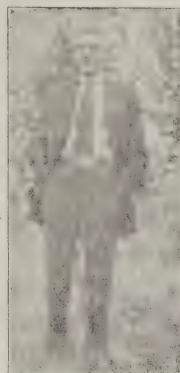
The members of the boys clubs were assembled and assigned quarters in the forenoon, and from 1:30 p. m. till 4 p. m., they were given instructions in live stock judging. J. A. Waldron, of M. A. C., acting as instructor in dairy cattle, and George A. Brown, of M. A. C., as instructor in sheep and hogs. From 4 till 6 the boys were conducted through the experimental plots and station buildings, by Mr. Putnam and Mr. Weston. In the evening the boys enjoyed a



C. E. Gunderson



Luther Olson Leonard Nylund



Carl Johnson

The County Agent of Gogebic County and His Prize-winning Team. The Three Boys Were Given a Free Trip to the Michigan State Fair, and Carl Johnson Won the \$200 Pure Bred Holstein Heifer Calf, in the Live Stock Judging Contest.

"weenie roast" and various club stunts under direction of R. A. Turner, state club leader. Dean Shaw also talked to the boys on the possibilities of agriculture in the Upper Peninsula.

test which was to occupy most of the forenoon.

Automobiles commenced to arrive at the station before 8 o'clock, and from that hour on till afternoon, there was almost a constant stream of cars

to the winner in the dairy cow judging contest, a pure bred Hampshire ewe lambs to the winner of the sheep judging contest, and a pure bred Duroc-Jersey sow pig to the winner in the hog-judging contest. The prizes aggregated more than \$300 in value.

There were thirteen counties of the fifteen in Upper Michigan represented by the boys' clubs, and nine of these counties entered judging teams of three boys each. All members were required to judge all three classes of stock, and the team scoring the highest average in all three classes was given a trip to the Michigan State Fair, all expenses paid, and also qualifications for entering the boys' judging contest at the State Fair.

Carl Johnson, of Gogebic County, won first prize in the dairy judging contest, receiving the Holstein heifer calf.

Lawrence McNamara, of Alger County, won first prize in the sheep judging contest, receiving the pure bred Hampshire ewe lamb.

Clarence Jarvinen, of Baraga County, won first prize in the hog judging contest, receiving the pure bred Duroc-Jersey pig.

The Gogebic county team, composed of Carl Johnson, Leonard Nylund and Luther Olson, won first place in team judging, and were given the trip to the Michigan State Fair, with the privilege of entering the big state contest at Detroit.

The Alger county team, composed of James McMillan, Lawrence McNamara and Werner Dunquist, won second place in team judging, giving the winners of first place a close contest.

Dairy demonstrations were conducted by J. A. Waldron, assisted by the station herdsman, Leonard Braamse, and county agents.

Experiment plot demonstrations were under the direction of G. W. Putnam, crops experimenter at the station, and sheep and hog demonstrations were conducted by Prof. George Brown, assisted by Clarence Peck, the station shepherd.

All of the demonstrations were very popular with the farmers and were highly instructive.

The afternoon program opened with a demonstration in boys' handicraft work by the McMillan team of Luce county. R. A. Turner, state club leader, delivered a short address, and Superintendent McMillan presented the prizes to the winners in the live stock judging contest. The boys were then released to spend the afternoon enjoying athletic sports.

The speaking program was the strongest ever arranged for an agricultural meeting in Cloverland. Hon. I. T. Waterbury delivered an address on "Michigan and the Agricultural College;" Hon. Jasen Woodman, mem-

(Continued on page 45)



The Grand Prize of the Contest, a Grand-daughter of Dutchess Skylark Ormsby. One of the Highest Producers of Her Breed.

The M. A. C. Alumni Association held a meeting the same evening, a banquet paving the way for a splendid program and reunion.

The second day, the big day of the Round-up, was ushered in with a cold rain, but enthusiasm was not lacking. The boys were up at 6 o'clock, ate breakfast at 7:30, and were keenly alive to the live stock judging con-

filing into the grounds. The cars numbered over 300 at noon, and then the count was lost by the parking directors in the scramble of automobiles to find parking space.

Promptly at 9 o'clock the boys lined up for the contest, commanding almost the exclusive interest of everybody on the grounds; for a \$200 pure bred Holstein heifer calf was to go



Visiting the Demonstration Plots

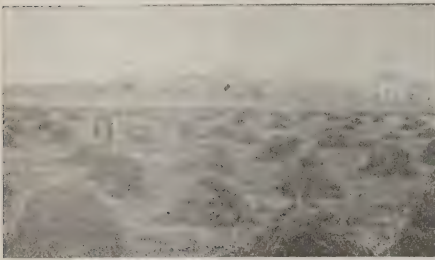


The Club Members Camp at the Station

CLOVERLAND MAGAZINE

EASY WHEN YOU KNOW HOW

By M. O. EMMONS, of Ladysmith, Wisconsin



Hay Field on the Emmons Farm, a Dependable and Profitable Crop.

I WOULDN'T live there for the best man on earth," was the first thing Mrs. M. O. Emmons said when the little old Ford pulled up to the spot where a new home was being built on a new farm in a new country. The Emmons family had just come from Iowa, and the wildness of Upper Wisconsin was too much for her. It takes a strong pioneering instinct to make one leave a comfortable home and friends to blaze the trails in a new country and establish a home in an unsettled community. But that was three years ago, and things move fast in a new community.

However, I had plenty of the qualities of a pioneer; for I came to Upper Wisconsin when we had to drive across country to my land over logging roads, impassable in a car. I purchased the first land I ever owned, and I have taken part in the transformation of my community from a wild, unsettled forest to a well-settled and progressive farming community.

In asking me to write of the tremendous success I have made in three years on a Rusk County farm you should have said *tremendous effort* rather than success, for my success lies rather in the future than the present.

As my past, present and future are all related and either could not be without the other, I am going to start out with a brief outline of what happened before I came to Upper Wisconsin.

I was born on my father's homestead in Kossuth County, Iowa, about forty years ago. My father died when I was about seven years old and the old home was sold for a song. I have witnessed Iowa land advance from that stage to the present average prices of from \$200 to \$400 per acre. At eleven I began to shift for myself, and worked out for farmers, going to school during the succeeding five winters. When I became twenty-one I tried farming for myself on a rented farm. Fifteen years ago I was \$3,000 worse off than nothing. I farmed for three years at Algoma, Iowa, on Senator Adams' farm, and raised pure-bred Poland-China hogs and Scotch Shorthorn cattle.

My first year on this farm we had nothing fit to show at the county fair, but the second year I took ten head of Shorthorns to the Kossuth County Fair and won six first and four second prizes, as well as sweepstakes on the bull, cow and Shorthorn herd. Besides this I got the purple on the best beef herd with a class of six head, competing with herds of Herefords, Poled-Angus and Red Poles.

The following year I exhibited eight head and took every premium I contested for and beat the highest priced old cattle of the herd, including a richly bred bull from the Frank Harding herd of Waukesha, with young cattle of my own raising.

Notwithstanding my success as a farmer I decided to leave this farm because the idea of building up a farm for someone else didn't appeal to me. I went into the feed and seed business

in Algoma under the name of The Iowa Protein Feed Company. This was ten years ago, and it was at my store that the men who are now the world's most famous pure-bred hog breeders gathered to discuss their feeding problems. They bought their first bags of tankage and other protein

feeds of me and fed them according to my directions. Starting in a community where tankage was practically unknown, my business developed to such an extent that my sales were double that of any other country dealer in the United States on the brand of tankage that I handled.

It was while in this business that I first became interested in Upper Wisconsin. A representative of the Northwestern Lumber Company of Stanley called on me at my store and interested me in cut-over land in Upper Wisconsin to such an extent that I took

the family arrived when the house was about half up.

We next built a shed barn 18 by 24, dug a well eight feet deep, and cleared two acres for a garden and potato patch.

The next year I put a woven wire fence around the house and barnyard. We drilled a well 65 feet deep and got the best of water, and then set out to fence 600 acres. I had bought two more 80-acre tracts, paying an invisible dollar down and giving notes for the balance. Later I bought two more eighties in the same way, which with my original 360 and the over-run at the correction line, gave me about 700 acres all in one tract. The whole 700 acres was gently rolling and perfectly drained. It is the only piece of land of that size that I ever saw that does not take water from anybody else's land. It is in the heart of one of the most fertile spots in all of Upper Wisconsin and the land surrounding it is now being opened up for settlement by a colonizing company.

The natural drainage system I believe is worth more than what I now owe on the land, or \$30 an acre. I

full of money through lack of attention to my hogs. I had a pure-bred boar and four pure-bred sows. They raised 25 of the finest pigs I ever saw. During my illness the young man I had on the farm with me left and the farm was left in the hands of an old man without much ability. When the pigs got out into the garden he penned them up instead of fixing the fence and letting them run in the clover. When I got out they were in pitiable condition. I turned them out into clover up to their ears, but the damage had been done, and though they got a good start by the time cold weather came, they never made anything to speak of. The whole lot sold for 18 cents per pound, dressed.

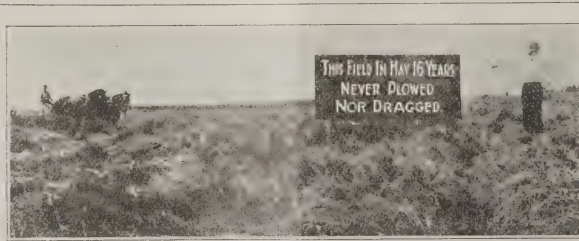
I now have three big horses, two cows, a couple of high grade heifer calves and a pure-bred Jersey bull an heifer as a start for a pure-bred dair herd. I also have 23 sheep, four Angora goats and a half dozen pigs. Besides pasturing this stock I took in 15 head of big three-year-old steers two months ago, and they are doing fine to date. Think of it! Two hundred head of grown stock—most of it big cow horses and steers, pasturing on land never cut a brush from nor cleared in any way except to burn in the spring and scatter grass seed mixtures broadcast after the fires.

We never feed our work horses any thing but pasture from May 1st until winter sets in, and they do the work of the farm, and some hauling, and keep in good shape.

I expect to brush out the large brush in this 600-acre pasture, but will not stump it nor log it up immediately. For I expect the wood to pay for removing itself. The stumps, being hardwood, are a small problem to remove.

My method of handling the land clear to mow is this: I first cut and pile the brush, piling it behind the stumps so as to burn out what we call that way. Then I pull all the old down logs into a pile and burn them. Those stumps which I can't pull out with a team, I blast, then pile and burn. I use no stump puller nor piler, because those stumps big enough to need these heavy tools in this country are too big to burn well, so we give them a dose of dynamite that splits them up and makes them fine enough to burn. After the wood is removed we plow the cradle knolls, both lengthwise and crosswise, then spring tooth the whole field until smooth enough to run a mower over. Then we seed it and spring tooth it again and level with a leveling drag. We pick off the stumps and leave the grubs to rot out. They will rot in two years and the land can

(Continued on page 36)



It Was This Sign That First Attracted This Iowan's Attention. Revealing to Him a Successful Future. This Sign Now Reads "19 Years".

an agency from the company to sell their lands. Two years later, W. E. Thompson, of the Flambeau River Lumber Company at Ladysmith, Wisconsin, wrote me, asking that I come up and inspect a new tract of cut-over land that he proposed to open up for settlement. Mr. Thompson was an old friend, formerly of Kossuth County, and I responded to his request. So, four years ago, I made a trip to Rusk County and found what I considered to be the best piece of land in the north end of Wisconsin.

I had very little cash and not much of anything else except determination, but I bought 360 acres on a thin shoe-string payment. Despite the protests of my wife and two daughters, I moved up the following spring, for I thought I saw a real opportunity for success.

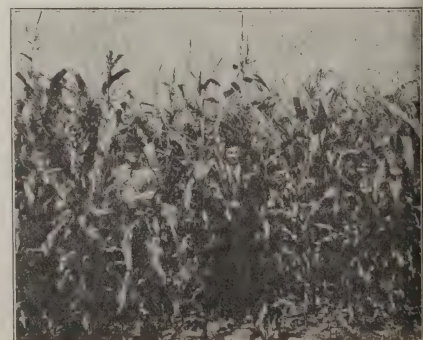
I came up ahead of the family to prepare a home for them. A road had been built since my first trip. We left the team in the road and went in to burn out a patch for the buildings. We pulled the first load of lumber onto the farm, which was six miles from town, and got up a small temporary frame shelter the first day. We made a bed on the floor and warmed up some coffee on an open fire outside. The next morning when we got up there was four inches of cold, wet snow on the ground. The team that was to bring the second load of lumber, the stove and supplies didn't show up. We waited two days for them and then walked into town after them.

I built a neat frame house 18 by 24 with 12-foot posts. We put a good sized dormer in the roof and built a lean-to addition 12 by 24 to be used for storage, work room and auto shed

paid on the average of \$20 an acre and borrowed \$10 an acre more to improve with, so I owe \$21,000 on it. This is, conservatively speaking, 50 per cent of its present selling value.

As fast as I can, I borrow money to improve with. I now have deeds to all of my land and \$2,000 from loans with which to improve this summer. I have set aside an additional \$600 to pay the first year's interest on my last \$10,000 loan. The first loan I got was for \$6,300. This was made on three 80-acre tracts which I bought for \$4,100, so you see, I borrowed \$2,200 more than I paid for them. A good part of the surplus went right back into improvements on the land in the shape of more clearing. When my present operations are completed I will have 100 acres cleared and 80 acres more brushed and burned. Right here I want to acknowledge the spirit of co-operation with which I was met by the bankers. To Mr. L. C. Streater, of the Rusk County Bank, is due all the praise merited by a banker with foresight and courage.

On August 1st of last year, I was unfortunate enough to be taken sick with pleurisy and for two months was confined to my bed. During that time I lost a hat



A Corn Crop That Makes the Owner Think of Texas

CLOVERLAND MAGAZINE

Field Crops in Northern Minnesota

By O. I. BERGH, Superintendent, North Central Minnesota Experiment Station

IN THE report from this station we have endeavored to present information bearing on the numerous experimental projects carried on at this station in as brief and concise a form as possible, eliminating a large amount of detail that it seemed unnecessary to include in so general a report. The reader should bear in mind that most of the projects reported on will be continued, therefore data here given should not be considered as final or conclusive.

The report is broadly a summary of the work of five years from 1915 to 1919, inclusive, covering the period that the writer has been in charge of the work. As the work in the various projects is completed, special reports will be published in which it will describe more in detail and the results discussed more fully.

An observation station of the United States Weather Bureau is located here. The average mean temperature for the three winter months for the five-year period was 6.50 degrees; for the three spring months, 37.7 degrees; for the three summer months, 64.50 degrees, and for the three fall months, 39.30 degrees. The average yearly mean temperature for the five-year period was 37.10 degrees.

The seasonal temperatures have a wide range. The lowest was 47 degrees below zero, in January, 1916, and the highest 102 degrees above zero, in July, 1917. Although the winter temperatures drop very low, the weather is not so unbearable as it may seem, as the low temperatures usually occur in still, dry weather. The summer is marked by cool nights and warm days.

The ground is usually covered with snow from the middle of November to the latter part of March or the first of April. Field work usually begins in April. In 1915 the first grain planting was done April 16; in 1916, May 3; in 1917, May 4; in 1918, April 6, and in 1919, April 19.

The five-year average annual precipitation was 22.57 inches. It should be noted, however, that 1917 and 1918 were years of unusually low precipitation (14.71 and 20.78 inches, respectively), causing the five-year average to be lower than the average for a longer period, which is borne out by the records of the United States weather station at Pokegama Falls, five miles west, where the average annual precipitation for a period of thirty-three years is 27.38 inches. It should be noted also that the greater part of the precipitation occurs during the growing season.

The work with grains, legumes, and grasses includes variety testing, time of planting, rate of planting, and production of pedigreed seeds for distribution. Breeding work is being carried on with corn and clover.

The production of pedigreed seeds is carried on in co-operation with the Central station, at St. Paul, and the substations at Crookston, Duluth, Morris and Waseca, as well as with farmers throughout the state who desire to join in the work.

Table 1 gives the results from the variety tests of spring wheat, 1915 to 1918, inclusive. The results for 1919 are given separately (Table 2), as several of the varieties grown in the previous years were dropped and new varieties added in order to harmonize

with and supplement similar work at the other stations.

The very poor yields in 1916 and 1919 were due to black stem rust.

The yields of the different varieties for those two years give a very fair indication of relative rust resistance. It will be noted that some of the durum wheats show a stronger resistance to rust than either the flint, bluestems, or bearded springs, while other durums are very susceptible to this disease. Among the latter, Prelude, a very early short-strawed variety, surpasses the flint and also the bluestems in hardness. This can be recommended as one of the best hard spring wheats for this district on account of its quick growth and the short stiff straw which insures it against lodging on farms where a short rotation is practiced and where grain is to be planted as a nurse crop for grasses following potatoes or corn, and where the land has been heavily manured, as is usually the case on dairy

farms in this district. This variety cannot be recommended where grain is grown continuously or in a long rotation, or for any region where the average annual rainfall is less than 25 inches.

Tables 3 and 4 give the results from variety tests of oats. The yields obtained indicate that it is one of the best grain crops for this district for the production of feed, both grain and roughage, for live stock. Kherson and Iowa No. 103, both early varieties, give promise. Victory, Ligova, Banner and Lincoln can also be recommended.

Barley ranks with oats as a grain crop for feed. As a rule the six-rowed varieties are heavier producers than the two-rowed varieties. Among the best six-rowed varieties are Minsturi, Odessa, Manchuria, and Blue Ribbon. Austrian Hannah, Swedish Chevalier, and Svansota are good two-rowed varieties. So far we have been unable to find a hull-less variety giving a yield sufficiently large to recommend it in

preference to the best bearded varieties.

Variety tests with rye were started in 1919. The yields from the different varieties are given in Table 5. While one year's test is not sufficient on which to base a safe conclusion, the information obtained may be of some practical value to farmers of this district. Swedish No. 2 and Rosen showed no evidence of winter-killing. Abruzzes seems to be the least hardy of the winter varieties. Swedish No. 2 has a longer straw than any of the other varieties under test. Rosen has the shortest straw

among the winter varieties. Spring rye yielded only about one-third as much as the winter varieties and the grain was of much poorer quality. Rosen and Swedish No. 2 can be recommended as good varieties for this district.

The results from the rate of planting test indicate that six pecks per acre is the minimum amount of seed that can be recommended for both winter rye and winter wheat. Further tests will be necessary to determine whether a larger amount should be used. In 1919 six pecks per acre gave the maximum yields when the seeding was done between Aug. 20 and Sept. 1. If sown later, more seed is probably necessary for best results.

Field peas have been grown at this station for both grain and hay. A mixture of field peas and oats seeded at the rate of two bushels of peas and one bushel of oats per acre is one of the best paying annual crops for this district. In normal seasons the yield is between two and three tons of hay per acre. In nutritive value for dairy cows, this hay compares well with timothy and clover hay. Heavy soils are better adapted to field peas than light sandy soils, especially for the purpose of growing them for hay. Large crops of oats and peas have also been produced on the peat land when this has received the proper treatment. As an annual hay crop on peat land a mixture of oats and peas can be recommended. There is little danger of damage to this crop by summer frosts on such land. Table 6 gives the grain yield in bushels per acre of the varieties of field peas grown on mineral land.

Corn is grown mainly for silage. Other crops used for silage are the sunflower and the soy bean. A mixture of corn, sunflowers and soy beans in the proportion of three parts of corn and one part each of sunflowers and soy beans drilled in rows forty inches apart at the rate of twenty pounds of seed per acre has given very satisfactory results both in yield and in quality of silage. The varieties used are Minnesota No. 13 corn, Mammoth Russian sunflowers, and Chestnut and Early Black Wisconsin soy beans. Early Black Wisconsin soy bean is a small variety and appears to be too early for this purpose. A larger and later variety is more satisfactory.

A breeding plot of Minnesota No. 13 corn has been maintained since 1915. The object has been to select for earliness and to reduce the number of rows of kernels on the ear in order to obtain ears of smaller diameter without sacrificing depth and shape of kernels. The results have been very encouraging and seed from



The Superintendent's Residence, North Central Experiment Station, Grand Rapids, Minn. Alfalfa in Foreground.



O. I. Bergh, Superintendent, North Central Minnesota Experiment Station.



Variety of Garden Produce Grown at the North Central Station

(Continued on page 27)

CLOVERLAND MAGAZINE

THE GARDEN "PENINSULA"

By PROF. L. A. CHASE

Head of Department of History, Northern Michigan State Normal School

"WELL, gentlemen, we are at Fairport."

And so we were. Since mid-day we had been swimming along over the admirable highway which joins Lake Superior and Lake Michigan at the longitude of Marquette and Escanaba without any clear idea of whither we were going. When asked our objective, Moore had simply replied, "ham and eggs." We were glad to learn that at least we should not go hungry at our journey's end, and at last we arrived at Fairport and at "ham and eggs" all in one. Before us was the opalescent lake, flecked with islands remote and near. Behind us the undulating countryside, farm and forest covered. About us was the tiny fishing village of Fairport. We must learn the names of those islands and of these new friends who greeted us. We must get our position in time and space; for, although we were most of us life-long residents of Michigan, we had dropped into a corner of it wholly strange and unknown to us, and there was a great deal that called for explanation.

What is a vacation for but to spy out the land and to uncover some nook of it that hitherto had been outside one's ken? We went joyously to work, and these impressions, quickly gathered, are the net product of our curiosity efforts. We were located on what is sometimes designated, the "Garden Peninsula," appropriately so designated because Garden is the principal town of the region and because of its actual and potential agricultural accomplishments. Here the limestone projects itself southward into Lake Michigan for many miles, terminating in Point Detour, and with large masses of it now separated from the mainland by water channels of varying depth, and known to mariners and the fisher-folks of the lake under such names as "Big Summer Island," "Little Summer Island," "St. Martin's Island," "Poverty Island," "Gull Island,"—each designation having some historical or descriptive significance. To those who go down to the sea in ships, they mean also a dangerous place of coast, still marked with the hulks of destroyed vessels and still for a few carrying memories of precious human lives wiped out by wave and foul weather.

The Government is not unmindful of the perils of this coast and has established lighthouses on St. Martin's and Poverty islands, but it is many a mile to the nearest station of the coast guards, and were it not for the watchful fishermen of this piece of coast, the record of losses would be largely added to.

No one seems to know how far back the land about Point Detour became in-



Dock at Little Summer Island

habitated. Formerly the fishermen lived chiefly on one or another of the islands that cluster in its neighborhood. One still finds on St. Martin's their decadent dwellings and brush-tousled clearings, the school in which seventy-five pupils gathered fifty years ago with as much eagerness as their grand-children manifest today, and with the cemetery, marked by a few marble slabs and the simple personal record which each bears.

Eventually these islanders moved their families over to the mainland, where some remain—at Fairport, at Sac Bay, at Fayette, and other hamlets on the coast. The old island docks are deserted and dismantled by the heavy gales that harass the coast.

Within this rampart of islands which fill the gap between Point Detour, Michigan, and Deathdoor Bluff, Wisconsin, lies a sort of fresh-water Caribbean Sea, formed by Big Bay de Noc to the northeast, and Green Bay to the southwest. Here is much shoal water and occasional choppy seas, but after forty-nine years of comings and goings in all seasons and under all sorts of conditions, Captain Pat Casey of the fishing tug, *Isabell C.*, knows the lake floor as intimately as Ty Cobb knows the road around the diamond. It is well that he does, for on occasion he has to help out of their difficulties those whom storm or accident have put off their course and in jeopardy of ship and life. But fishing for shipwrecked sailors is only incidental business for Captain Casey and his associates. Fishing for lake trout, for whitefish, for herring, for perch, or chub, for sturgeon, bass, suckers, rainbow and brook trout, for billfish, pike and pickerel—in the order of their importance—is the big game of life for those who live off the lake and dwell on the peninsula.

One of these fishermen, Mr. Robertson, who, many years ago took to this outdoor life in lieu of an otherwise certain death from tuberculosis, in addition supplies our Sybarites with caviare made from the carefully selected spawn of sturgeon and, since sturgeon are scarce, his product does not sell cheap. Fishing still brings its financial rewards on this coast, although fish are not as enormously abundant as in the old days. Some fishermen aver that, if the state, through the Michigan Fish Commission, would cease trying to replenish the supply of fish in the Great Lakes by planting young fry, and would instead permit Nature to do its proper work during a closed season at the proper time, the

fishing game would yield greatly enlarged returns all round.

The tourist has not made his way in any large numbers to the region we are describing—why, is not clear, save that tourists, like sheep, congregate where some have led the way and company is congenial. If beauty of landscape and seascape were enough to attract the wearied ones of the city, and life among simple, honest folks in an idyllic natural setting sufficient comfort for those tired of the rough and tumble of Detroit, Chicago or Milwaukee, I should expect that a large outside population would seek this spot in the summer season.

The "fish-hook" harbor of Fayette is lovely in excoelsis, faced, as it is, by precipitous bluffs rising from deep water on its northern side. Considerable treatment of the public by the local proprietors of the land, would undoubtedly cause many to summer here habitually. Sac Bay, four or five miles to the south of Fayette, is a broader, opener inlet of the big lake, but with evidently an excellent bathing beach and attractive uplands.

Fairport fronts a charming group of islands—the choicest locations for summer homes—with cooling breezes, forest cover, flowers, native flora and animal life, and fishing *ad libitum*, docks and fishermen to assist with the transport, if that be desired, during the mid-summer slack in their own proper vocation. Beyond Fairport to Point Detour is a fine beach and shoreline. Of this tourist business a beginning has been made. There is already a small tourist colony at Fayette, and A. C. Moore, a manufacturer from Davenport, Iowa, has been taking up some land during the past year with a view to its use for summer recreational purposes.

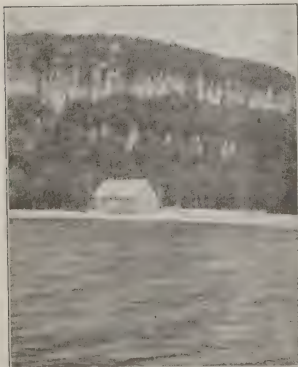
If the Michigan Park Commission were alive to the public recreational opportunities of this portion of the state, it would not permit all of this shoreline and the islands to fall into private hands, but would gather in the choicest portions of them for the per-

manent benefit of the people of the whole state. If additional legislation is required, it should be sought at the approaching legislative session of 1921. I cannot imagine a more lovely situation for a state hospital or sanatorium than the massive limestone bluff fronting Lake Michigan in the vicinity of Fayette, particularly at the Raymond and Peterson farms, where the high table-land drops precipitously into the lake from a height of more than 200 feet.

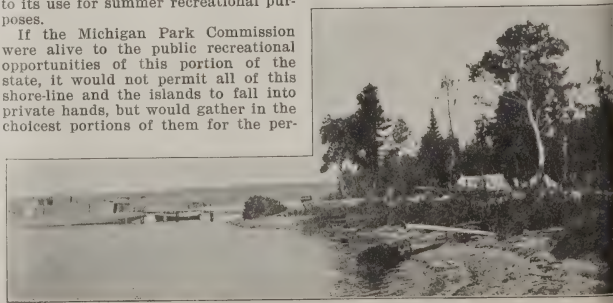
The hinterland of all this shore is remarkably well-developed farming country. The underlying limestone at most points comes very close to the surface, but not too close for a highly productive agriculture. Formerly this section was heavily covered with hardwood forest—chiefly hard maple, and where there is not tillage, a vigorous second-growth is well advanced. This speaks for itself. Very notable is the great abundance of butternut trees, which, so far as I have been able to ascertain, here alone in the Upper Peninsula of Michigan grow wild. But certain fruits grow wild as well, particularly the pin cherry, wild plum and high-bush cranberry, and Mr. L. M. Geismar, county agricultural agent of Houghton County, who was one of our party, and who is undoubtedly the first authority on all agricultural matters for the northern peninsula of Michigan, is unreservedly confident that this should be a great cherry region. Some excellent beginnings have been made, and where failures have occurred, this seems especially attributable to some incidental negligence that would cause failure anywhere.

In one of the islands "husk-tomatoes" were found growing wild in great profusion. There was also a profusion of wild berries, juniper, etc. But perhaps most striking is the advanced stage reached by agriculture and the clear-cut, neat appearance of the countryside save where the Canada thistle has been allowed to gain a start. It must be observed that we are dealing here with an agricultural community twenty to thirty miles off the railroad—in this respect perhaps as isolated as any community in the state. That the land has been so completely cleared is primarily due to the presence at Fayette for many years of a charcoal iron furnace operated by one of the present constituents of the Cleveland-Cliffs Iron Company, which consumed enormous quantities of hard maple when hard maple was worth a few cents per cord. The furnace ceased to operate thirty years ago. So also has discontinued long since the shipyard at Sac Bay, where once staunch wooden schooners were constructed. Agriculture remains, where the productive clay loam overlies the limestone to sufficient depth—and we found places where the depth was reported to be sixty feet; and the limestone is itself

(Continued on page 34)



Cliff Dock. Bluff 205 Feet High



Roosevelt Point, Little Summer Island

"OUTSIDE, PLEASE, OUTSIDE"

By JOHN T. McNAMARA, of Houghton, Mich.

CAREFULLY followed the daily papers last winter to find out, if possible, what the *other fellow* was doing to amuse himself while winter held us in its grip. I wondered what the kids were doing. I remembered plainly what winter had always meant to me—what it means to me now—and I wondered if it times had changed so greatly since that time.

I scanned the headlines. 'This is what I found:

"Dance—Eagle Hall Tonight—Public Invited. Lots of Jazz and the City's the Limit."

On down to the next item:

"House Party—Miss So-and-So Entertains With Parlor Games and Music—Luncheon Served. Good Time Had by All." Etc., Etc.

And another:

"Young Men's Club Meets at Home Mr. So-and-So. Cards and Dancing." Then another:

"The Movie Houses Had To Turn 'em Away Last Night."

And then the last, which completely shattered my hopes:

"Country Club closed. Lack of patronage. Members no longer patronize the club during winter months. Road has not been broken this winter. Too much snow—weather too severe."

So this is why we have winters. Cards and dancing; indoor luncheons; jazz music, movies, and house parties. Times have surely changed. Don't you remember, not so many years ago, when the first fall of snow meant to you? Don't you remember, looking out of the school window and seeing, for the first time, those feathery flakes floating about in the air, the thrill that developed your entire soul? Don't you remember how impossible that old fool seemed just then, and the long hours before that recess bell rang and you could get out into it?

Maybe that's quite away back. But it is so very long ago when most municipalities boasted a country club; a golf club; a snowshoe club; a camping club; a tobogganing club;—or, if anything else, a skating rink. How many kids, but a few years ago, were without their backyard rink? How many of our so-called younger set, five years ago, would attend "jazz" dances four or five nights, movies two or three nights out of the week during the entire winter? Did "house parties" surround sleighrides in those days? Did the stuffy, germ-laden dance hall and movie house come before the snowshoe hike? I think not.

People are sadly neglecting one of their greatest assets—the winters. For younger people shrink from the vigorous, health-giving winter air, and prefer the parlor. Municipalities are overlooking the greatest of opportunities—capitalization of winter sports.

Do you realize that in many sections of the United States, not once during the entire year is afforded the opportunity to ski, to skate, snowshoe or sleighride? Do you know that northern municipalities are losing hundreds, possibly thousands of dollars annually through lack of appreciation of this?

And after all, we are dealing with inevitable. The calendar arranges the winters for the northern states, and the snow—lots of it—comes regularly every year. We can't get away from it—so why try. Why not get the most and the best out of it?

Look at Canada! The Dominion of Canada maintains an entire department for the organization and capitalization of winter sports. Experienced athletes—men who know the outdoors—are placed at the head of each department, and it is their duty to go after winter and make it pay.



The Famous "Ski Hill" at Ishpeming, Mich., Where Record Jumps Are Made

And they do it. Now Canada is playing up her winter sports as a part of a \$4,000,000 advertising and publicity campaign to dispose of its public lands to small settlers. That's going after it on a big scale, and it is the only sane and reasonable way to deal with long winters.

The Copper Country—Houghton and Keweenaw Counties, Michigan—are among the few sections which have maintained, to any degree, a passion for winter sports.

The Amphidrome and Colliseum, at Houghton and Calumet, the Glacidome, Mohawk and the Pelastara, Laurium, all in Michigan, are splendid illustrations of Copperdom's outdoor zest. If you are still skeptical about the profits and the good you can do in your community with clean winter sports, come to the Copper Country and talk it over with the young people.

Some people say the Copper Country is *skate crazy*. It is—it is making the most out of what it considers the best season of the year—winter. There are hockey teams galore—and one or two mighty formidable organizations among them. They turn out in force—young and old, rich and poor—big and little—to skate and *enjoy winter*. The young people are laying the foundation for healthier bodies and more useful lives. The older folks are grasping the opportunity to keep themselves fit and happy. The result is a happy, satisfied and prosperous Copper Country—and winter does it all.

How about the other sections? I

have learned that many of the Upper Peninsula municipalities actually failed to even support an outdoor skating rink this year. While it is true that outdoor skating rinks are not suitable to the Upper Peninsula, they would be a great benefit to the kids where nothing better can be had. When you talk to some of these municipal officials they will say, "Dances get 'em all. No money in it." You make any proposition attractive enough to the young people, and they'll follow you to the finish. Give them a covered building, a "warming up" room and a comfortable place to change their skates, catch their breath and talk it over—with a "hot dog" and a cup of coffee to season—and you needn't worry about the dances or the movies.

On the other hand, you can't hope to attract a crowd if your bait is unattractive. You can't expect to keep them coming if you have to keep them skating to keep warm. You can't expect to send them out on a snowshoe hike or a ski-ride if there isn't a warm club-house or a blazing log-fire at the other end. Organize your clubs. Build skating rinks, ski slides, toboggan hills. Get your city officials interested. They're all from Missouri, of course, and they've got to be shown. They're all classed as *elders* and their interest, naturally, isn't a personal one. Do it for the kids. Keep them out of the dance halls, movies and the parlors. Bracing air has saved the life of many a westerner, easterner

and southerner. You know that this is a mecca for the tired and weary, the sick and lazy, so make it work for *your kids*—and *you*. Capitalize the air, the snow, the ice, and everything that comes with winter. You can do it. You're not starting anything. You're taking it up where some hot-house plant interfered with it a few brief years ago.

Some of the greatest ski meets held in the country used to be staged at Ishpeming, Mich., regularly, every Washington's birthday. Where are these? What happened here?

True, Ishpeming, Negaunee and Marquette still cling to a few—a very few—of their old-time winter pastimes, dog-racing, for instance, but it is only a morsel as compared with past years.

What's the matter with iceboating? Experts at this thrilling pastime will tell you that while the broad expanse of the open lake is probably the most fascinating, the small, inland lake actually offers the best facilities, with the greatest degree of safety and security, for iceboating. And the northern states are dotted with 'em. Hundreds of small, clear-water lakes where the iceboat enthusiast could pilot his craft without danger of being blown out into the open sea or dashed into a "wind hole."

And yet how many iceboats have you seen this winter? Compared with this, how many would you see *any day* if you could visit Montreal, Canada, where the biggest events of the winter sport program are carried out each year. In Montreal, there are at least twenty enclosed skating rinks. Some of them would almost hold the entire population of many a good sized city. Every kid plays hockey. I have seen six thousand people on snowshoes coming down over the Mount Royal hill, carrying torches and shooting Roman candles. A sight like this will make you almost long for winter. Everybody wears costumes that are warm and graceful for snowshoeing, skating or skiing. They are getting the most out of their winters, because they know how.

Upper Michigan works in extremes—on this winter sport proposition, and the extremes are east and west—Copper Country and the Soo, which are the only two municipalities supporting large public rinks and fast hockey teams. Keen but sportsmanlike rivalry exists. They get together occasionally—mix it up and the best of feeling prevails. Furthermore, it brings the two sections closer together. One knows what the other is doing.

But where else throughout Upper Michigan is there an inter-city winter sport schedule worked out. Nowhere, to the best of my knowledge. Why, for instance, can't the Iron Range, Dickinson, Marquette, Gogebic and Iron Counties organize and maintain hockey clubs?

What's the matter with Menominee, Delta, Alger and Schoolcraft Counties getting together to organize winter sports? Every municipality in each of these counties should have a skating rink and a hockey team. Every High School should have a hockey team. It should be looked upon as a civic institution—a specific department in city government, and maintained as such. It would bring people closer together in inter-county affairs—business and pleasure—and would, besides—be a constant source of revenue to each municipality.

I am sure we will come to it sooner or later. It is human nature to follow the line of least resistance and to cater to novelty. Just now, indoor sports are monopolizing our attention—most of us. But we'll get back to it. We will all learn that we must build and maintain rugged bodies for a rigorous climate. I firmly believe, however,

(Continued on page 24)



A Great Expanse of Ice is Kept Swept Clean of Snow by the City of Marquette for the Benefit of the Kiddies, and a Lot of Older Folks, Too.

CLOVERLAND MAGAZINE

The Dominant Agricultural Publication of the Northwest.
 (Combined with The Northwestern Farmer, the Sugar Beet News, and the Northwesterner.)
 Established 1903.

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 H. W. LUENING.....Vice President
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THE ANDREWS PUBLICATIONS,
 313, 315, 317, 319 Quimby Avenue,
 Menominee, Michigan

Entered as second-class matter January 27, 1916, at the post office at Menominee, Michigan, under the Act of March 3, 1879.
 Subscription price, postage paid, \$1.00 a year in advance.

Advertising rates on application.
 Make all remittances to Cloverland Magazine, or to R. M. Andrews, Publisher.

HENRY A. PERRY, Editor.

SEPTEMBER, 1920

An Agricultural Policy

WHILE agriculture is the basis of all industry and is so recognized by economists, bankers and big business men, few states have a real agricultural policy. It is remarkable that an industry which produced 52 per cent of the total wealth of the nation in 1919 should receive such scant consideration by legislatures and by the Congress of the United States.

No nation in the world gives such little attention to its agriculture and the development of its agricultural resources as the United States. Food production receives first consideration in England, France, Italy, Germany, and it was the dominant factor in Russia until that country went bolshevik and the farms were sovietized. Even China, in its most latent period, realized that its congested population must be fed and required food production. Japan, in its narrow confines, has never been a material food importing nation. An agricultural policy has been necessary in these nations to sustain them. But even in countries where the food problem is not a pressing matter, where the spectre of famine has never stalked, an agricultural policy has been pre-eminent. The Argentine is rapidly becoming a great exporting nation for beef cattle and wheat, New Zealand and Australia produce more wool and mutton than any other region in the world, India produces more beef cattle than the United States. This is all due to an agricultural policy in government.

The lack of an energetic agricultural policy in the United States, and in most of the several states, has resulted in decreased food production, beef, mutton and wool. Unless this attitude is changed the United States is destined to become a heavy importing nation of all food stuffs, while millions of acres of good farm land are permitted to lie idle.

Wisconsin stands out head and shoulders above all other states with a clear-cut, well-defined agricultural policy. The effect of this policy is reflected in many ways. While nearly every state in the Union this year suffered a decreased rural population, reduced acreage of crops, reduced dairy herds, reduced flocks of sheep, reduced everything in the realm of agriculture, Wisconsin has forged ahead.

Wisconsin this year increased its acreage of the eleven principal crops by 26,000 acres, while Michigan has over 18,000 vacant farms and more than 30,000 empty farm houses, Ohio something like 40,000 idle farms, New York 25,000 abandoned farms. In the face of an exodus from the farms in most states to the great industrial centers, Wisconsin not only held its farmers on the farms, but added about 5,000 new farm settlers to its population since the first of January, 1919.

Great as all the greatest industries are in the several states that have

them, they have not added the permanent wealth to the state that these 5,000 farm settlers and these 26,000 acres of additional tilled acreage have to Wisconsin. Wisconsin has a real agricultural policy in its government, and this policy is paying big dividends and will continue paying big dividends so long as its agricultural policy is maintained. And it will be maintained because it pays.

Why do not other states do likewise? Why is Congress so negligent in its agricultural policy, if it really has any? Why do legislatures give so little consideration to a real agricultural policy?

Getting Results

THE farm bureau organizations are getting results in contrast to the failures of erratic political movements that have sprung up spontaneously in various sections of the United States only to make a splash and gradually ripple away into the placid affairs of every day farm life, just as the slight commotion of a stone hurled into a lake is soon absorbed by the smooth surface of water and all signs of disturbance quietly obliterated.

The fundamental principles of these sporadic political fiascoes have expressed in a measure some of the things farmers want and need, and some things the farmers neither want nor need. The political movements, though born of righteous demands for a better deal for farmers, invariably drifted into the hands and direction of astute politicians and men bent upon feathering their own nests rather than accomplishing results for the farmers. A few years and the panacea for farming ills became a political football or died of inanition. Sound business principles were lacking to stabilize the movement against political intrigue or give it nourishment to grow into a strong organization.

Big business interests have been too shrewd to attempt the formation of a political party, because it would stand out boldly as a political class party which would result in complete failure. They succeeded by holding fast to business policies, protecting their interests by supporting men favorable to their interests regardless of party affiliations. Woman suffrage was accomplished by the same methods, and the liquor traffic was abolished by the same route.

During the last two years the farmers have come to see the light, and through the farm bureau organizations they are really getting somewhere on strictly business principles. There is no politics in the farm bureaus. The slogan is "keep out of politics and stick to business." This "sticking to business" includes supporting those candidates for office, regardless of political party affiliations, who seem favorably disposed to consider the farmer and his problems in the conduct of public affairs and in matters of legislation. Each farmer is free to make his own selection in his own constituency. In the meantime, the farm bureau proceeds with business without consideration of politics. No farm bureau member is told how he ought to vote or who he should vote for, except by the politician seeking his vote. He is left free to judge for himself, so far as the bureau is concerned.

The dollars and cents policy of the farm bureau has accomplished more for the farmers in the last year than all the former political movements since the launching of the Farmers' Alliance more than thirty years ago. As a matter of fact, not one reform, not one profitable or satisfactory result has come out of the maze of political sky-larking in all these years, no matter how laudable or palatable the principals may have been made for the reason that each movement was nothing more than a political class party. A class party will never succeed in any democracy because it does not represent democracy or speak for the masses. But a business organization among the farmers, like the farm bureau, is something different. It is founded and operated along sound business lines and principles, hence its success.

Shall the Sheep Industry Live?

THE present status of the sheep industry in the United States is one that requires immediate attention by the entire public if it is to continue an economic factor in our national animal husbandry enterprises. Unquestionably influences that have been at work during the past several months to beat down the price of wool are backed by sinister motives originating with the shoddy manufacturers.

The wool growers of the United States had the courage to propose a law that would require clothing manufacturers to weave into the selvedge of the cloth figures showing the content of virgin wool, shoddy, cotton, hemp, jute, feathers, fur, wood fibre, paper, and everything else that goes into cloth in these days of profiteering, high wages and high finance. The bill was introduced in Congress and is known as the *Truth In Fabric Bill*. Its purpose is to take wool from the sheep's back out of competition with the rag pile, and at the same time protect the consumer by giving him an opportunity to know exactly what he is getting for his money.

Almost simultaneously with the introduction of this bill in Congress a nation-wide drive on the price of wool was inaugurated. Buyers in the country have offered as low as 10 and 15 cents a pound for wool in some districts, while in others the price was quoted at 20 and 25 cents, with a few offers of 30 cents. They have not been getting the wool. A portion of the 1920 clip has been consigned to warehouses, and most of the remainder is now held in county, regional and state wool pools formed by the growers.

It is very evident that an attempt is being made to force a tremendous break in wool prices, and should it come, should the growers fail to hold their wool pools, we might as well say farewell to the sheep industry in these United States. Wool can not be produced in this country at prices offered by speculators, whose trails lead straight to the shoddy mills of the East. There must be an aroused public sentiment that will force the *Truth In Fabric Bill* through Congress at its next session, an aroused public sentiment that will shut off the monthly auction sales of free foreign wool in the United States, or one of our basic industries must be sacrificed in favor of the junk dealer who collects rags for the shoddy manufacturer to remake into clothing and sell it as wool.

It is the duty of every citizen who wants a square deal for the wool grower, who wants a square deal for himself when he buys a suit of clothes, to write most vigorously to his congressmen and senators to support the *Truth In Fabric Bill* and enact it into law at the earliest date possible.

Attention is called to the *Wool Market Field Notes from the Market Report* of August 14, published weekly by the Bureau of Markets of the United States Department of Agriculture, which is reprinted in another portion of this number of Cloverland Magazine. If these figures are not enough to stimulate action, nothing else will.

Finding the Profit

FINDING the profit in any business venture, enterprise, or vocation is the objective of all who participate in any of these activities. Unless a profit can be found, or the business, enterprise or vocation cannot be made profitable, it is or should be abandoned. Usually the man finding his enterprise unprofitable attempts to learn the reason by careful analysis of his methods, and inaugurates changes that have for their purpose the creation of a paying, going concern.

The average farmer is less likely to diligently search for the profit and loss in his business than the merchant

or manufacturer, because he does not have the visible payroll to meet at regular intervals, accounts that must be met every thirty days, and the incidental expenses to pay out of the cash drawer, nor do his products move so steadily through the hands of salesmen. But the payrolls of the farm are there and must be met. Expenses must be paid, and the product of the farm do move. The business man has found it necessary to keep books to take care of his business, to determine what measures are necessary to make the business profitable. But how many farmers keep books?

How many keep books accurately? How many tabulate labor cost, land cost, tractor cost, implement and tool cost, marketing cost, milk production cost, egg production cost, hog and sheep cost, field crop cost? And then how many balance these accumulated costs at the end of the year with receipts from their farm products?

Systematic and detail cost accounting will determine which cows are profitable and which are kept at a loss. It will determine which kind of hogs are the most profitable. It will weed out the boarder hen. It will lead to selections of grain varieties that give the greatest yields per acre, which includes those varieties which are disease-resistant and hardy. It will point out the profit in the use of fertilizers for all crops, and show a way to increase all crop production. It will find the varieties of potatoes that do best in any locality and of different types of soils. It will demonstrate the difference between a well prepared seed bed and just turning the ground over and planting. It will check up the crop rotation. It will bring about new and improved methods everywhere on the farm, and what machinery is profitable based on the investment. And then it will determine the prices that ought to be received for the finished product of the farm.

This is the only known way to the profit in farming, the only known way to discover the leaks that make the farm non-profitable. Profit is not to be found by lumping the entire product together and striking a balance at the end of the year with farm receipts. Such methods are misleading and show nothing. A scrub cow may be pulling down a profit on the field crops, poor weather will result in poor yields on an idle seed bed and in ideal weather will pull down the profit on the best day herd. The saving of a few cents on spraying solutions may be answered by a short crop of potatoes and poor quality to offset the profit of a good stand of grain. A pure-bred cow might have been twice the size of a scrub on the market scales, while the cost of feed and labor is the same. A whole barnyard full of hens will cackle a daily loss, because one may lay one egg while the other lays a dozen. And so on in every phase of farm life. The profit is not to be found unless there is complete segregation of every activity, the cost and profit of every item going into the books. It is the only way to the farm on a real business basis. Only system that can be devised actually find the profit.

Shoddy manufacturers have not only lowered the price offered for wool but the price demanded for clothing. However, wool is going down and shoddy is going up. Rags have been worn into clothing for so long and so many people now have to wear their rags due to the high price of clothing, perhaps it is a scarcity of rags that is causing the high price of shoddy.

Crop and wool buyers have operated for years on loans obtained on warehouse receipts. That was business. Now the farmer bureaus are doing something to finance their pooled marketing agencies. This is a "crime." Strange the viewpoint some people have of other people's affairs, isn't it?

Where is the discussion of wool and this presidential campaign?



For President
Warren G. Harding

For Vice-President
Calvin Coolidge

The Republican Party and the Farmer

YOU farmers of America have more at stake in this election than any other element in our citizenship.

You have borne more than your full share of the burdens of public waste, extravagance and mismanagement.

You want a **change**.

You want this change at Washington because the present national administration has singled out yours, the biggest of all national industries, as a target for a price fixing policy which has limited the return for your output, while leaving you exposed to the exactions of profiteers in every other line of production, distribution and speculation.

You Have Been the Victim

You have been told what you could charge for your staple products, you have been subjected to all sorts of restraints, exactions and annoyances, while there has been no limit to what others might charge you for food, clothing, machinery and other necessities of your occupation.

The result of this unwise, unsympathetic policy, while harmful to the farm producer, has not been helpful to the consumer. Production has been curtailed, speculation in food has been facilitated, and that expansion of the great farming industry essential to America's future has been halted.

Make the Farm More Profitable

The Republican party by its platform and the utterances of its candidates, is pledged to a sympathetic, practical, helpful attitude toward American agriculture. It promises a constructive program which will make the farm more profitable and therefore more productive.

The Republican party is not a class or sectional party; its policies are intended for the upbuilding of the whole

nation. But it believes that it is essential to the general welfare that the American farmer, whose industry is the base of our national prosperity, should be stimulated to larger production through an assurance to him of a larger share of the values which his own labor and enterprise create.

The Democratic platform reaffirms the tariff-for-revenue-only policy which will open the American market to the invasion of cheap farm products of foreign lands (the resultant of cheap labor) when shipping becomes available. It promises no relief from the price fixing and other farm policies of this administration, or remedy for the violent fluctuations in farm product prices which have caused the farmer such heavy losses.

Pledges of the Party

Here is what the Republican platform and the country-bred candidate say on the issues of special interest to the farmer:

Practical and adequate farm representation in the appointment of governmental officials and commissions.

The right to form co-operative associations for marketing their products, and protection against discrimination.

The scientific study of agricultural prices and farm production costs at home and abroad, with a view to reducing the frequency of abnormal fluctuations, and the uncensored publication of such reports.

The authorization of associations for the extension of personal credit.

A national inquiry on the coordination of rail, water and motor transportation, with adequate facilities for receiving, handling and marketing food.

The encouragement of our export trade.

An end to unnecessary price fixing and ill-considered efforts arbitrarily to

reduce prices of farm products, which invariably result to the disadvantage both of producer and consumer.

The encouragement of the production and importation of fertilizing material and for its extended use.

The extension of the federal farm loan act so as to help farmers to become farm owners and thus reduce the evils of farm tenantry, and also to furnish such long-time credit as farmers need to finance adequately their larger and long-time production operations.

Revision of the tariff as necessary for the preservation of a home market for American labor, agriculture and industries. (Note that the pledge to the farmer is just as specific as to labor and capital).

Harding's Endorsement

Senator Warren G. Harding, the Republican nominee, in his speech of acceptance, took advanced ground on behalf of agriculture. He said:

"I hold that farmers should not only be permitted but encouraged to join in co-operative associations to reap the just measure of reward merited by their arduous toil."

"Our platform is an earnest pledge of renewed concern for agriculture, and we pledge effective expression in law and practice. We will hail that co-operation which will make profitable and desirable the ownership and operation of small farms and which will facilitate the marketing of farm products without the lamentable waste which exists under present conditions."

"A Republican administration will be committed to a renewed regard for agriculture and seek the participation of farmers in curing the ills justly complained of and aim to place the American farm where it ought to be—highly ranked in American activities and fully sharing the highest good fortune of American life."

"Becoming associated with this subject are the policies of irrigation and reclamation, so essential to agricultural expansion, and the continued development of the great and wonderful west."

Mr. Harding pledges federal co-operation with state governments in building and improving farms-to-market roads rather than national highways, to cheapen and facilitate the quick shipment of crops.

Send for a free copy of Senator Harding's address in which he discusses at length present day problems of the farmer.

REPUBLICAN NATIONAL COMMITTEE, Auditorium Hotel, Chicago

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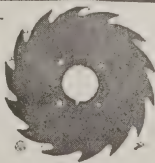
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SAW REPAIRING OF ALL KINDS



With Bridges Burned

By REX BEACH

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LOUIS MITCHELL knew what the telegram meant, even though it was brief and cryptic. He had been expecting something of the sort ever since the bottom dropped out of the steel business and prices tobogganed \$40 a ton. Nevertheless, it came as an undeniable shock, for he had hoped the firm would keep him on in spite of hard times. He wondered, as he sadly pocketed the yellow sheet, whether he had in him the makings of a good life insurance agent, or if he had not better "join out" with a medicine show. This message led him to think his talents must lie along the latter line. Certainly they did not lie in the direction of metal supplies.

He had plenty of time to think the situation over, however, for it is a long jump from Butte to Chicago; when he arrived at the latter place he was certain of only one thing, he would not stand a cut in salary. Either Comer & Mathison would have to fire him outright or keep him on at his present wage; he would not compromise as the other salesmen had done and were doing.

Twenty-five hundred a year is a liberal piece of money where people raise their own vegetables, but to a man traveling in the West it is about equal to "no pair." Given \$200 a month and a fair expense account a salesman can plow quite a respectable furrow around Plymouth Rock, but out where they roll their r's and monogram their live stock he can't make a track. Besides the loss of prestige and all that went with it, there was another reason why young Mitchell could not face a cut. He had a wife, and she was too new, too wonderful; she admired him too greatly to permit of such a thing. She might, she doubtless would, lose confidence in him if he took a step backward, and that confidence of hers was the most splendid thing in Mitchell's life. No, if Comer & Mathison wanted to make any change, they would have to promote him. Ten minutes with the "old man," however, served to jar this satisfactory determination to its foundation. Mr. Comer put the situation clearly, concisely.

"Business is rotten. We've got to lay all the younger men off or we'll go broke," he announced.

"But—I'm married," protested the young salesman.

"So am I; so is Mathison; so are the rest of the fellows. But, my boy, this is a panic. We wouldn't let you go if we could keep you."

"I can sell goods—"

"That's just it; we don't want you to. Conditions are such that we can't afford to sell anything. The less business we do the fewer losses we stand to make. Good Lord, Louis, this is the worst year the trade has ever known!"

"B-but—I'm married," blankly repeated Mitchell.

Comer shook his head. "We'd keep you in a minute if there was any way to do it. You go home and see the wife. Of course if you can show us where you're worth it, we'll let you stay; but—well, you can't. There's no chance. I'll see you tomorrow."

Ordinarily Mitchell would not have allowed himself the extravagance of a cab, but today the cars were too slow.

He wondered how the girl would take this calamity, their very first. As a matter of fact, she divined the news even before he had voiced his exuberant greetings, and, leading him into the neat little front room, she curled up at his side, demanding all the reasons for his unexpected recall. He saw that she was wide-eyed and rather white. When he had broken the bad news she inquired, bravely:

"What is your plan, boy?"

"I haven't any."

"Nonsense!"

"I mean it. What can I do? I don't know anything except the steel business. I can lick my weight in wild cats on my own ground—but—" The wife nodded her blonde head in complete agreement. "But that lets me out," he concluded, despondently. "I can sell steel because I know it from the ground up; it's my specialty."

"Oh, we mustn't think about making a change."

"I've handled more big jobs than any man of my age and experience on the road, and yet—I'm fired." The husband sighed wearily. "I built that big pipe line in Portland; I sold those smelters in Anaconda, and the cyanide tanks for the Highland Girl. Yes, and a lot of other jobs, too. I know all about the smelter business, but that's no sign I can sell electric belts or corn salve. We're up against it, girlie."

"Have people quit building smelters?"

"They sure have—during this panic. There's nothing doing anywhere."

The wife thought for a moment before saying, "The last time you were home you told me about some Western mining men who had gone to South Africa—"

"Sure! To the Rand! They've made good, too; they're whopping big operators, now."

"You said there was a large contract of some sort coming up in London."

"Large! Well, rather! The Robinson-Ray job. It's the biggest ever in my line. They're going to rebuild those plants the Boers destroyed. I heard all about it in Montana."

"Well!" Mrs. Mitchell spoke with finality. "That's the place for you. Get the firm to send you over there."

"Um-m! I thought about that, but it scared me out. It's too big. Why, it's a \$3,000,000 job. You see, we've never landed a large foreign contract in this country as yet." Mitchell sat up suddenly. "But say! This panic might—" Then he relaxed. "Oh, what's the use? If there were a chance the firm wouldn't send me. Comer would go himself—he'd take the whole outfit over for a job like that. Besides, it's too big a thing for our people; they couldn't handle it."

Mrs. Mitchell's eyes were as round as buttons. "Three million dollars' worth of steel in one contract! Do you think you could land it if you went?"

"It's my line of work," the young man replied, doubtfully. "I'll bet I know more about cyanide tanks than any salesman in Europe, and if I had a decent price to work on—"

"Then it's the chance we've been waiting for."

The girl scrambled to her feet and fetching a chair, began to talk earnestly, rapidly. She talked for a long time, until gradually the man's gray despondency gave way to her own bright optimism. Nor was it idle story alone that she advanced; Mitchell found that she knew almost as much about the steel business as he did, and when she had finished he arose and kissed her.

"You've put new heart into me, anyhow. If you're game to do your share, why—I'll try it out. But remember it may mean all we've got in the bank, and—" He looked at her darkly.

"It's the biggest chance we'll ever have," she insisted. "It's worth trying. Don't let's wait to get rich until we are old."

When Mr. Comer returned from lunch he found his youngest salesman waiting for him, and inside of ten minutes he had learned what Mitchell had on his mind. With two words Comer blew out the gas.

"You're crazy," said he.

(Continued on page 18)

All of your animal is not meat

Only a little over half of your beef animal can be sold as meat.

That's why our wholesale price of beef has to be several cents higher per pound than the price of live cattle.

If the other half were worthless, and by-products had no value, the beef from 12-cent cattle would have to sell for nearly 24 cents a pound, plus expense of dressing, shipping, and selling.

But the beef from 12-cent cattle usually sells for about 18 cents, wholesale, because the by-products are worth something.

Values of by-products vary; they are determined by world conditions, over which we have no control. Neither can we control the price of beef, which is perishable, and which has to be sold from week to week for what it will bring.

When by-product values are high, as hides were a few months ago, the difference between cattle prices and beef prices is less; when by-products bring low prices, as they have recently, the spread between cattle prices and beef prices widens.

The point is that the more we can get for by-products, the more we can afford to pay for cattle; we take by-products into consideration every day, when we are bidding against other packers for your live stock.

Your commission man knows about market conditions.

His vigilance—the competition of other packers—the large volume of our business—the saving of wastes—these things always insure you as high a price for your cattle as is humanly possible, considering the prices that beef and by-products will bring.

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RED CROWN Gasoline is made especially for automobiles. It will deliver all the power your engine is capable of developing. It starts quickly, it accelerates smoothly, it will run your car at the least cost per mile, and it is easily procurable everywhere you go.

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CLOVERLAND MAGAZINE
MENOMINEE MICHIGAN



Party of Bee Keepers at the Eskil Apiary at Iron Mountain

Bee District in the Cut-over Country

By LAWRENCE D. TUCKER
Upper Peninsula Development Bureau

EVER since the hum of the saw-mill first pierced Upper Michigan's dense forests of hardwood, a half century ago, the problem of the profitable utilization of the idle, cut-over lands, thus created, has been a source of endless research and study.

There have been any number of suggestions, and a few of these are now in operation. But when, just three years ago, statistics revealed the fact that there were over 8,000,000 acres of idle, cut-over lands in the peninsula, the lumbermen and other big land owners began to sit up and think. "What are we going to do with it?" they asked. And then and there began an energetic campaign for almost any type of industry which dealt in cut-over grassed lands.

First came the grazer. A two years' publicity and advertising campaign among the sheep and cattle sections of the west brought 50,000 head of sheep and 5,000 of cattle, with some fifty settlers, and they colonized, in all, approximately 100,000 acres of cut-over lands. But 100,000 is the merest fraction of 8,000,000, and, consequently, the work is only just begun.

With the grazing campaign in full swing, along comes a colonization man from Chicago, and stirs up sufficient interest in the farmer-community plan to grant a number of conferences with the big land owners throughout the region. The company's manager, A. L. Mordt, has made two complete circuits through the peninsula, talking with the land owners and describing the plan which he has put into successful operation in Oconto County, Wisconsin. The plan, briefly, involves the settling of large tracts of such cut-over lands as are adapted to agriculture by first platting the land into farm lots and then, through a sales campaign, disposing of the lots in such a manner that at the end of the campaign a farmer-settlement, or community, is established. Such a community is supervised and assisted by the colonization company.

It is likely, therefore, that next year will see grazing and colonization firmly established as two leading factors in the utilization-of-land campaign.

And Now Another

And now comes another important feature, and one which might easily surpass the others in its relation to the more rapid growth and progress of the idle acres—bee keeping.

We sort of happened onto it a very short time ago while making an automobile trip to the village of Iron Mountain, Michigan, where Henry Ford and son are establishing a mammoth body-manufacturing plant. We pulled into the village about one hour ahead of schedule, and decided to run out beyond the limits for a short distance and look over the site of the proposed plant.

We had gone about a mile and were rounding a sharp curve when there appeared on the side of a hill, to the right, what seemed to be three or four long rows of bird houses, perched up on stakes and nestled there among the trees as though to invite the most exclusive of the feathered tribe. We slowed up to view the sight, and then distinguished a huge sign-board, at the juncture of a road which turned sharply to the left—leading into the bird-house colony. The sign read: "Eskil's Apiary."

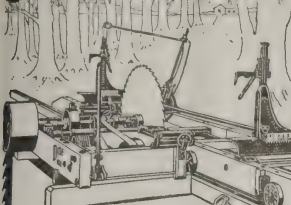
Being more of a *news hound* than an agriculturist or a bee farmer, the sign meant little to me, and, in fact, I went so far as to ponder upon the possibility of having suddenly come upon an ape-breeding farm, a zoo or something of the sort. Imagine my surprise, then, when a mere roadside urchin informed me that: "That's where they raise them stingers." It was a bee farm.

I had never seen a bee farm before. It was something entirely new to me. Recollecting certain eventful days in my youth, I admit painful familiarity with the buzzing specie, but the thought of hazarding one's physical comfort to the extent of actually culti-



This Apiary Is Just a Side Line with Thomas Hanna, of Iron Mountain. Editing a Newspaper Requiring Most of His Time.

Cash in on your timber



Your timber has a cash value the moment you turn it into lumber.

The demand for lumber is tremendous and prices are way up. Do you realize that only about *ten logs* (14 inches thick and 16 feet long) will make 1,000 feet of lumber worth \$20 to \$60 according to the wood? With a small

Dixie PORTABLE Saw Mill

you can make 4,000 to 6,000 feet of accurate lumber a day, with a 10 to 15 horse power engine. In the *next sixty days* the lumber you can make would pay for the Dixie mill, all of your expenses and leave you a nice profit besides. This is from actual proven experience of hundreds of Dixie owners.

No Experience Needed

The Dixie is so easily understood and simple to operate that any farmer can handle it successfully. The Dixie is made of the best materials, and put together to stay. Makes accurate lumber after years of use. Simple control and feed. Easy to move from place to place. Made in all sizes to cut from 4,000 to 20,000 feet per day.

Investment Small

for the returns. Even if you used the Dixie for making lumber for but one barn of your own, it would more than pay for itself in the lumber money it would save you. Every acre cleared for cultivation increases crop production—a splendid thing to do at this time. Investigate this at once. Send for

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Agents for Northern Michigan and Wisconsin.

FARM LANDS

I am a farmer myself, work a 1,200-acre farm each year, so I know what farming land is. I know what a farmer wants. I have a large acreage of unimproved farm land for sale and guarantee satisfaction.

Write to me.

J. W. Weston

Proprietor,

Oak Ridge Dairy

WAKEFIELD, MICHIGAN

vating the bee had never occurred to me as a very healthy occupation.

But, armed with the reporter's curiosity, I turned into the road, and drove up to the house. Finding no one at home, I walked toward the *bird houses*, and encountered a rather curious sight. It, or she, was a middle-aged person, and, at first sight, I wondered whether or not I had intruded upon a bridal party, for she was draped from head to foot in a long, trailing veil of what appeared to me to be nothing more nor less than mosquito netting. The long, elbow-length gloves added to the *bridey* appearance.

"Pardon me, but—" I began.

"Oh, that's all right," she broke in, cheerily. "Just stand back far enough so they won't see you, and you won't get bit." I looked around hurriedly for *they*, expecting to see nothing more nor less than a pair of broad-chested, long-toothed English bulldogs, or, worse yet, a playful cub bear or two—but saw neither. A second glance, however, prompted me to take a sudden step backward, for, from the nearest *bird-house* there arose a black cloud of the fattest, buzziest, busiest bees I had ever seen. And as they hovered playfully over my head I looked almost plaintively to the kindly-faced person for help. I gazed wairly, once more, at the *bird-house*, and ventured a step forward. "I was just passing by, and, noticing the sign, thought I'd drop in and find out what it was all about," I remarked.

"Well, to begin with," she replied, smilingly, "it's a bee farm—an apiary." I agreed with a frantic swing at a huge drone which hung all too close to the end of my nose. "So I see."

"You might tell me, if you will," I began, "what you think of this country as a honey producer," and I neglected my friend, the bee, long enough to dig up pencil and paper.

"Well, this particular spot here used to be ideal for cultivating bees and producing honey," she remarked, "but I'm afraid the community is becoming too thickly populated lately to permit sufficient open area for the bees to work in."

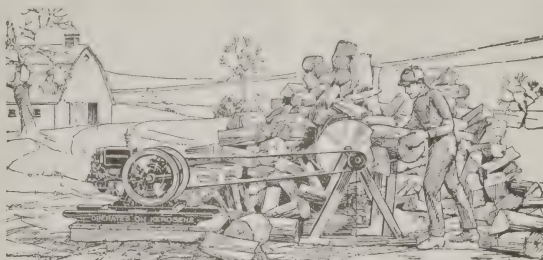
"We have 110 hives," she remarked, placing her hand rather affectionately, I thought, on one of the *bird-houses*. And, incidentally, right then and there I learned the *why* of the *bird-houses*. "During the past several years we have averaged from \$35 to \$40 profit on each hive." A hasty mental calculation placed the aggregate at about \$4,400. "This year, however, we were forced to move part of our colony to a less thickly settled district. My husband is handling that end of it, and I am closing the season out here at the old stand."

"I believe that the open, cut-over areas are the best type of lands for the profitable raising of bees," continued Mrs. Eskil, busily scraping away on a comb which she had lifted from the hive. "You will notice that most of the open areas in this northern Michigan country are thickly covered with the different types of clover—alsike, June, red-top and the others. And the clover, of course, is the ideal stamping ground for the bee. Moreover, our winters are ideal. Not too mild, nor too cold, but just the proper combination of the two to produce and maintain a hardy type of bee—a type which really produces the best kind of honey, and the most of it."

"In our several years of operation in Upper Michigan we have enjoyed excellent success. With very little extra help we have found time not only to care for our colony of 110 hives, but to do quite a bit of farming as well," and she waved a hand toward a narrow valley, just beyond the house, where corn, potatoes and other truck crops appeared to be thriving in the best of manner. "And what's more," she remarked, emphasizing the statement with brandish of the knife she was using, "Mr. Eskil has a photographic studio over there at Iron Mountain, in which he spends considerable time."

I bravely struggled to keep up, as closely as possible, with the probable net which this thrifty couple realized

(Continued on page 19)



Sawing Wood Grinding Feed and Meal Shelling Corn Cleaning Grain Baling Hay—

HOW many of these fall and winter jobs are waiting for an **International Kerosene Engine** on your farm? At that the buzz saw, feed grinder, burr mill, corn sheller, fanning mill and hay press represent only a few of the many farm tasks that can be handled with the greatest efficiency and economy by International engines. Such chores as pumping water for the stock, turning the cream separator, churn or grindstone; operating a power wash machine—these muscle-wearing, time-consuming jobs are also waiting for low-cost International kerosene power—waiting the whole year round. Let a little 1½ h. p. engine shoulder the drudgery of these always-present chores.

And in addition to handling your own work you can make a good profit for yourself during odd days by grinding feed, meal or flour for your neighbors.

You will find plenty of work on your farm for an **International Kerosene Engine**—and there is a size for every requirement—1½, 3, 6 and 10 h. p. See your nearby International dealer in regard to the one best suited to your needs—and write to one of the addresses below for illustrated catalog.

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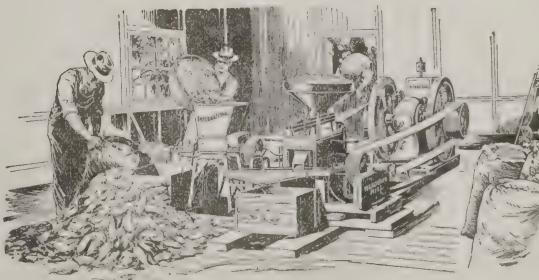
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Branch Houses:

GRAND RAPIDS, SAGINAW, DETROIT, Michigan
GREEN BAY, EAU CLAIRE, Wisconsin
ST. CLOUD, Minnesota



With Bridges Burned

(Continued from page 14)

"Am I? It's worth going after."

"In the first place no big foreign job ever came to America—"

"I know all that. It's time we got one."

"In the second place Comer & Mathison are jobbers."

"I'll get a special price from Carnegie."

"In the third place it would cost a barrel of money to send a man to England."

Mitchell swallowed hard. "I'll pay my own way."

Mr. Comer regarded the speaker with genuine astonishment. "You'll pay your way? Why, you haven't got any money."

"I've got \$1,000—or the wife has. It's our nest-egg."

"It would take five thousand to make the trip."

"I'll make it on one. Yes, and I'll come back with that job. Don't you see this panic makes the thing possible? Yes, and I'm the one man to turn the trick; for it's right in my line. I'll see the Carnegie people at Pittsburgh. If they quote the right price I'll ask you for a letter, and that's all you'll have to do. Will you let me go?"

"What sort of a letter?"

"A letter stating that I am your general sales manager."

The steel merchant's mouth fell open.

"Oh, I only want it for this London trip," Mitchell explained. "I won't use it except as a credential. But I've got to go armed, you understand. Mr. Comer, if I don't land that Robinson-Ray contract, I won't come back. I—I couldn't, after this. Maybe I'll derive a 'bus—I hear they have a lot of them in London."

"Suppose, for instance, you should get the job on a profitable basis; the biggest job this concern ever had and one of the biggest ever let anywhere—"

Mr. Comer's brow was wrinkled humorously. "What would you expect out of it?"

Mitchell grinned. "Well, if I signed all those contracts as your general sales manager, I'd probably form the habit."

"There's nothing modest about you, is there?" queried the elder man.

"Not a thing. My theory of business is that a man should either be fired or promoted. If I get that job I'll leave it to you to do what's right. I won't ask any questions."

"The whole thing is utterly absurd," Mitchell's employer protested. "You haven't a chance! But—Wait!" He pressed a button on his desk. "We'll talk with Mathison."

Louis Mitchell took the night train for Pittsburgh. He was back in three days, and the afternoon Mr. Comer, in the privacy of his own office, dictated a letter of which no carbon copy was preserved. He gave it to the young man with his own hand, and with these words: "You'd better think it over carefully, my boy. It's the most idiotic thing I ever heard of, and there isn't one chance in a million. It won't do you any good to fail, even on a forlorn hope like this."

But Mitchell smiled. "I can't fail—I'm married." Then when the other seemed unimpressed by this method of reasoning, he explained: "I guess you never saw my wife. She says I can do it."

It was only to this lady herself that Mitchell recited the details of his reception at Pittsburgh, and of the battle he had fought in the Carnegie office. The Carnegie men had refused to take him seriously, had laughed at him as at a mild-mannered lunatic.

"But I got my price," he concluded, triumphantly, "and it sure looks good to me. Now for the painful details and the sad good-bys."

"How long will you be gone?" his wife inquired.

"I can't stay more than a month, the bank-roll is too small."

"Oo-oh! A month! London is a long way off." Mrs. Mitchell's voice

broke plaintively and her husband's misgivings at once took fire.

"If I fail, as they all feel sure I will, what then?" he inquired. "I'll be out of a job! I'll be a joke in the steel business; I'll be broke. What will you do?"

She gave him a ravishing, dimpled smile, and her eyes were brave once more. "Why, I haven't forgotten my shorthand, and there are always the department stores." In a high, querulous tone she cried "Ca—a—sh!" then laughed aloud at his expression. "Oh, it wouldn't hurt me any. But—you won't fail—you can't! We're going to be rich. Now, we'll divide our grand fortune." She produced a roll of currency from her purse and took four \$20 bills from it.

"Only \$80?" he queried.

"It's more than enough for me. You'll be back in a month." She thrust the remaining notes into his hand. "It's our one great, glorious chance, dear. Don't you understand?"

Faith, hope and enthusiasm, the three graces of salesmanship, thrive best in bright places. Had it not been for his wife's cheer during those final hours young Mitchell surely would have weakened before it came time to leave on the following day. It was a far cry to London, and he realized 'way back in his head that there wasn't one chance in a million of success. He began to doubt, to waver, but the girl seemed to feel that her lord would bound upon some flaring triumph, and even at the station her face was wreathed in smiles. Her blue eyes were brimming with excitement; she bubbled with hopeful, helpful advice; she patted her husband's arm and hugged it to her. "You're going to win, boy. You're going to win," she kept repeating. For one moment only—at the actual parting—she clung to him wildly, with all her woman's strength, then, as the warning cry sounded, she kissed him long and hungrily, and fairly thrust him aboard the Pullman. He did not dream how she wilted and drooped the instant he had gone.

As the train pulled out he ran back to the observation car to wave a last farewell, and saw her clinging to the iron fence, sobbing wretchedly; a desolate, weak little girl-wife mastered by a thousand fears. She was too blind with tears to see him. The sight raised a lump in the young husband's throat which lasted to Fort Wayne.

"Poor little thoroughbred," he mused, "I just can't lose, that's all."

The lump was not entirely gone when the luncheon call came, so Mitchell dined upon it, reasoning that this kind of a beginning augured well for an economical trip.

Now that he was away from the warmth of his wife's enthusiastic contemplation of his undertaking made the salesman rather sick. If only he were traveling at the firm's expense, if only he had something to fall back upon in case of failure, if only Comer & Mathison were behind him in any way, the complexion of things would have been altogether different. But to set out for a foreign land with no backing whatever in the hope of accomplishing that which no American salesman had ever been able to accomplish, and to finance the undertaking out of his own pocket on a sum less than he would have expected for cigarette money—well, it was an enterprise to test a fellow's courage and to dampen the most youthful optimism. His proposal to the firm to win all or lose all, he realized now, had been in the nature of a bluff, and the firm had called it. There was nothing to do, therefore, but go through and win; there could be no turning back, for he had burned his bridges.

When one enters a race-horse in a contest he puts the animal in good condition, he grooms it, he feeds it the best the stable affords, he trains and exercises it carefully. Mitchell had never owned a race-horse, but he reasoned that similar principles should apply to a human being under similar

(Continued on page 27)



All you need

is a certain quantity of regular "Old Faithful" HEMLOCK lumber, hammer, saw, nails and your two hands to build one of the best silos ever put up by any man.

Send for our Silo Book which shows you exactly how you can

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SILO

This silo is not a shabby makeshift, but a handsome, non-freeze, double wall silo that stands without guys and has no hoops to tighten.

We do not sell silos, but we want you to get better acquainted with the merits of "Old Faithful" HEMLOCK, the 300-year farmers' standby, and buy it from your local dealer whenever you need building lumber. Be sure to send for the free silo book and mention dealer's name. (Other building books.)

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MENOMINEE, MICHIGAN

MORE FARMERS

There is room for 100,000 new farmers on the cut-over lands tributary to the SOO LINE in Upper Michigan, Upper Wisconsin, and Northern Minnesota.

Good lands which will fulfill all conditions imposed by the new farmer as to location, soil, climate, rainfall, water-supply, roads, schools, churches and neighbors. Lands which can be bought at a price that will fit the pocket of the poor man, as well as meet the requirements of the man of means. Write for information,

H. S. FUNSTON, Land Commissioner SOO Line Railway
MINNEAPOLIS, MINN.
Wisconsin, Central Ry. Land Grant Lands in Wisconsin

Bee District in the Cut-over Country

(Continued from page 17)

a year, from their varied operations. I estimated it at from \$10,000 to \$12,000 a year, at the lowest.

We have tried the bee game in other sections throughout the middle-west," she continued, moving on to the next hive, "and experience has taught us that with a knowledge of bee business the bee farmer can make good, on a big scale, in this cut-over country. By the way, how much of the cut-over land is there in this region?"

He mentioned a figure slightly over eight millions of acres. "Whew," she calculated, "room for hundreds of good-sized bee farms in that layout, isn't there?"

Yes, I believe that the Northern Michigan farmer might well afford to pay more attention to this profitable branch of agriculture. It is not as difficult as it looks, and an energetic farmer could pick it up in a comparatively short time. And after that, she looked up and smiled, "his wife could turn it, as I have done. True, it requires attention, but, in a region where honey is plentiful, it is not as difficult as one might suppose. I have easily handled the 110 hives alone when Mr. Eskil has been on the farm, or at his radio, and have plenty of time for the housework besides."

We continued our journey down the long lane of hives, Mrs. Eskil talking readily upon the possibilities of the Upper Michigan cut-over country for bees, and myself gradually becoming interested and acquiring an A-1 creek in my neck trying to follow the tantalizing antics of some dozen or more sectionate buzzers who persistently dangled about my head. At any rate, at the end of a half hour with Mrs. Eskil I was fully convinced that the Northern Michigan farmer is making a mistake in not giving more attention to the production of honey.

This year Mrs. Eskil is getting 30 cents a pound for the honey, as compared with 25 cents last year. The increase, she explained, comes largely as a result of the increased prices asked for the high-grade types of the queens, which propagate the hives. A good queen, Mrs. Eskil declared, now costs \$1 and \$12 each, though the lesser grades may be secured from 50 cents to \$1. Located on the direct route of the Cloverland Trail, through Upper Michigan, much of her trade is represented by the steadily increasing tourist traffic, while she declares that the local market would gladly corner her production if she so desired. To the best of my knowledge, Eskil's is the only good-sized apiary in Upper Michigan. There are some in Northern Wisconsin, and they all report a successful season. But, just between you and me and twelve bees that left me only when I sought refuge behind the wheel of my car—there is a future in bee farming for the Upper Michigan farmer, if he will grasp his opportunity. It is somewhat of a new thought in the utilization of Upper Michigan's 8,000,000 more acres of clover-laden, cut-over lands, and bee farming is going to be

COUNCIL MEATS

Better Meats That Cost Less
No Waste · No Ice Needed
Always Tender
Ready-Cooked To Perfection

Stop Buying Water—at the price of meat

A GOODLY part of the meat you buy is water, and when the meat is cooked much of the water in it—for which you have paid—goes off in steam. The water is just so much more waste for which you pay, just like the uneatable trimmings.

Council Meats in cans are ready-cooked—the water isn't counted in the weight for which you pay. Neither is there any waste, for every bit of a can of Council Meats is good nutritious food.

And it is so easy to prepare Council Meats!

Take Veal Loaf for instance. To prepare it yourself at home means a good bit of work and trouble and time. But when you buy Council Veal Loaf it is all ready-cooked and it only has to be warmed in the can—opened—sliced—served. All the other Council Meats are just as easily served.

INDIAN PACKING CORPORATION
Consumers' Building, Chicago, Ill.

Made in
Cloverland
in our
\$2,000,000
Packing Plant
at Green Bay,
Wisconsin

Every Council Brand
Label
Advertises Cloverland

Ours is the largest
producing industry in
Cloverland today.
Make it yours, too.

Six Economical Meat Meals

ROAST BEEF
For 5-70c

CORNEB BEEF HASH
For 5-70c

VIENNA STYLE
SAUSAGE
For 5-60c

SLICED DRIED BEEF
For 4-30c

POTTED HAM
For 5-80c

OVEN BAKED BEANS
For 4-25c



the subject of a widespread campaign among the farmers of Northern Michigan from this time on, until *Cloverland honey* becomes as familiar a household by-word as California oranges or Armour's ham.

Chocolate makes a cake richer because of the fat it contains and stiffer because of the starch which thickens the batter. This means that slightly less flour and fat are needed in a chocolate cake recipe.

GREEN BAY

Is Your Natural Gateway—Buying or Selling.
You need a Personal Business Agent "At the Gate" to look after your affairs.

Platten Produce Co.

Stands Ready to Serve You "At the Gate"
Let Us Sell Your Produce. Let Us Buy Your Supplies.
We will sell your Cloverland Produce for you on a commission basis, or buy outright from you.

WHICH WILL IT BE?

WANTED NOW—Potatoes, Root Crops, Hay

We are now contracting for our supply of

XMAS TREES FOR 1920

WHAT HAVE YOU?



Dr. Hockings, of Crystal Falls, Keeps an Apiary in His Back Yard



MORE MILK MORE BUTTER



MAKE US PROVE IT

R. 1, Wrenshall, Minn., April 28, 1919.

The J. L. Ross Co.,
Superior, Wisconsin.
Gentlemen:

I had about decided last fall not to feed any mill feed during the winter on account of the high price and results from feeding during previous winters. Finally, I decided to give your No. 11 dairy feed a trial. I began to feed it Dec. 16, 1918, and before Jan. 1st I found the increase in milk was paying for the dairy feed, and am satisfied we received the results you claimed for it. Not only that the cows have given a splendid flow of milk all winter and now are going onto grass in fine shape. Many who have seen the herd have complimented me on the condition of them and ask what I have been feeding, and all I can tell them is hay, bagas, and No. 11 dairy feed. I have recommended it to all my neighbors who had not heard of it.

Yours truly,

JEROME B. GILBERT.

Ask your dealer. If you prefer, write us direct for prices and some further dollar-and-sense facts.

SAVE FREIGHT SAVE TIME SAVE MONEY

THE J. L. ROSS COMPANY
SUPERIOR, WISCONSIN

Made In Greater Cloverland

A Wonderful New Tire Backed by Years of Experience

FOR years The Amazon Rubber Co. has built good tires, but it was not satisfied. Careful laboratory tests were made. The country's leading rubber engineers were consulted. Thousands of dollars were spent in developing a new and greater tire.

For more than a year these new tires have been given the harshest road tests. And they have in every way come up to our highest expectations.

Ask your Amazon dealer to show you the new Amazons.

Northern Hardware & Supply Co.
Menominee, Mich.



"SARGEANT" PONCHO

A Three Year Old Veteran of the World War

By JOHN O. VIKING

IS MAN alone immortal?—Where is my dog?"

No, this is not intended as a treatise on animal psychology, setting forth than an animal has reasoning power, etc.—am aware of that to my own satisfaction. Should anyone, however, wish to delve into such a subject I recommend the reading of Lewis H. Morgan's "The American Beaver and His Works," and other works dealing with similar or kindred phenomena.

The first intimation our family had that we, perchance, were entitled to two service stars came to us in a letter from brother George, dated from "Somewhere" in France, October 3, 1918, from which I cite:

"Have been in the trenches for some time so it has not been very convenient getting hold of stationery. Thus my delay in writing you.

"Just opened a package of cookies, a rare treat in the trenches. Yesterday were given a supply of cigarettes, tobacco, chocolate bars and cookies, by the Red Cross. That certainly went a long way towards cheering up the bunch. 'Poncho,' my little

On February 27th he wrote as follows:

"Back once more to the Company and it almost feels like getting home to be back with the old bunch. Poncho was certainly glad to see me again. He is constantly at my heels wherever I go. It seems as if he is afraid I'm going to leave him again."

And, finally, citing from a letter written from Germany, dated May 1, 1919:

"Being Mothers' Day and also the first opportunity since we got in Germany, naturally would write you a few lines.

"Have been here pretty nearly week but, according to late rumors, which I think are official, will be homeward bound within a short time. This may be the last letter you get from me from this side of the pond. So don't be a bit surprised if you see me coming home by the Fourth of July.

"This is quite a change from France although being farther north the climate is much more pleasant. Having real summer weather right now.



"Sargeant" Poncho, Trench Veteran

dog, is sitting along side of me begging for his share of the spoils. By the way, I guess I've never mentioned him in any of my letters. He's got quite a history. I've had him with me ever since I left the Border. He's about the same size as 'Bob' and about the same breed. He sure has been lots of company. I hope to be able to get him back to the States with me."

Before proceeding I wish to state that George B. Viking enlisted at Hibbing, Minn., on the 11th day of April, 1917. Sworn in at Jefferson Barracks, Mo., on the 13th day of the same month and was sent to Douglas, Arizona, where he and "Poncho" shortly met.

I cite from a letter written December 14th, 1918:

"It seems kind of nice to get back to civilization once more, although at present we are but in a small village. Since we got here have been on three different fronts—the Alsace, the Verdun and the last drive over the Meuse River. Poncho pulled through it all and is feeling fine. If all goes well I hope to get him back to the States with me and take him home."

May as well state right here that brother George and his little pet Poncho were members of "the Suicide Squad," i. e. of a machine gun outfit. I cite from a letter dated February 12th, 1919:

"Still away from the company but expect to be back in about a week's time. Had to leave Poncho, the dog, with the Company when I left. But if all goes well will take him home with me."

Brother, at the time the above was written, was suffering from an attack of the typhoid fever, although we were not aware of it until he returned home.

"Talking about going home, my biggest worries are about getting Poncho home safely; there are so many in the Company that naturally would like to have him so it is going to be a hard time on my part to keep track of him."

Well, Brother George and Poncho are at home since the 28th of July last, and a mighty hard time he did have to keep him in sight. The last two nights spent aboard the steamer on the homeward voyage he stayed awake in order to see that Poncho was not surreptitiously hidden away. His keeping a watchful eye on the dog permitted someone to purloin the souvenir he brought with him.

Shortly after signing of the Armistice, or more correctly, on the 18th of November, 1918, the Seventeenth Machine Gun Battalion, of which our fit Brother George was a member, commenced its march from the battlefields, which march terminated on the 6th of December when they reached the village where they were billeted, or rather where Company "A" of said battalion stayed for about five months. En route they passed through the following towns and villages of France: Poncho all this while marching along with them:

Senoncourt, Sommaine, Lisle en Broussis, Brillion, Camouilly, Rays-Brachy, Bouzencourt, Les Colombes, 2 Eglises, Vaudremont, Montrouge, Gurgyle-Chateau, finally reaching Poinssinet on the 6th of December.

Besides these places and the thirty three days spent in the trenches, and about two weeks of open fighting in the Argonne, at which place when the outfit was out of rations for three days at one time, Poncho was forced to subsist on field mice which he caught (better off in this respect than his human friends), Poncho has been for about a year in Camp Forrest, Chi-

angua Park, Ga. About a month in Martinsburg, S. C.; has been in New York, in Newport News, Va., Campuster, Chicago, and Milwaukee, Wis., here brother George visited brother Edward. At that time The Milwaukee Sentinel (its issue Sunday, June 29) published the picture of George and is dog with the following comment:

"PONCHO AND HIS MASTER
'Poncho,' two years-old veteran of the World War, visited The Sentinel Office on Thursday.

"Born on the Mexican border during the chase for Villa, he became Villa's namesake and has since weathered more than a year of overseas service. 'Poncho' is just a dog—a little fox terrier, the mascot of the seventeenth Machine Gun Battalion, which he served.

"He is the property of George B. King of the Sixth division. The two were just returned from France and popped off at Milwaukee to visit Viking's brother, Edward Viking, of the Sentinel composing room staff.

"The dog has had few worries—it is Viking who had to worry about mugging 'Poncho' past inquisitive P.'s and keeping him with his company. Active service in the Vosges mountains, where he lived in the trenches for thirty-three days, doing his 'bit' by amusing and entertaining his comrades, and the campaign in the Argonne Woods are 'Poncho's' chief claim to fame."

The day following the appearance of the above one Miss Leona H. "Cawker," of 2016 Grand avenue, Milwaukee, a dog fancier who keeps a kennel, takes care of stray dogs, etc., and when anyone wishes to send the dog off to "the happy hunting ground" she will have the work done in a humane way, called up by brother Edward, it was very much disappointed when she learned that Poncho by that time was away up in northern Michigan. She wanted so very much to have seen him.

Now I shall quote the following from "History of Company 'A,' 17th Machine Gun Battalion," written by Lieut. Merrill L. Hummel of Carlisle, Pa.

"This history would be incomplete were it not reference made to one of its most, best known and most highly honored members. A hero of many an encounter and escapade, some being down to the men of the outfit this soldier is greatly admired by his fellow soldiers. Enlisting at Douglas, Arizona on the 21st day of March, 1917, during the Mexican insurrection, coming with his organization to France to participate in the great struggle for democracy, this young soldier has been an inspiration and help to many a weary man on the march by his exemplary fortitude and perseverance. He was never known to slack about his grub; he never complained to the supply sergeant with imaginary troubles; on details he was either present or absent, mostly absent. The only sign of dissatisfaction as an occasional growl and as every soldier indulges in that form of pastime, it was not such an unusual occurrence to excite much sympathy.

"Beginning his military career as a private in the rear ranks, he attracted by strict attention to duty and his added weight of a drag with the company officers and the top sergeant, proceeded in getting several promotions until he became sergeant. Unfortunately, while the outfit was back in France this soldier went A.V.O.L. and then and there his chances for further promotion was blasted. The object of this discourse honorably

wears a wound stripe in commemoration of an encounter with the iron heel of a typical army mule. If, perchance he met another of his kind and he was unaccompanied by any member or members of the company and it seemed as though a fight was in the air, his natural gift of diplomacy came to his rescue and he usually skillfully withdrew; if, however, the company was present he then knew that reinforcements were near at hand, and he would fight as only an American dog can fight. The men of Co. 'A,' 17th M. G. Bn. will always remember the interesting and greatly admired mascot, Antonio Bum Poncho."

The following is the master of Poncho, culled from said history may be of some interest:

"At this place (Mountaun) the famous order to 'beg, borrow, or steal rations,' was issued to the company commanders and from our company Sergeant Viking, with a detail of men was sent to carry out, in any one or all of the above enumerated ways, the said order. Sergeant Viking proved to be capable of correctly interpreting the terms of this order for he soon returned with his detail carrying ample provisions for supper and breakfast."

Although I may not be my brother's keeper still I am my brother's dog keeper, for the present at least, as Poncho has his home with us and I can assure that he is a pet and receives better treatment than most of his human comrades of the great campaign for democracy.

As a fitting climax I shall here-with append a plea for the canine species taken from The Milwaukee Sentinel, for the 7th of November, 1919:

Just as a brave man makes this world a better place for all men to live in, so the noble dogs who distinguished themselves time and time again in the shell-swept allied trenches of France and Flanders have benefited all other dogs.

The Myers bill now pending in Congress, which within the District of Columbia and United States territories, is, to quote from its text, "an act of justice to the dog and a tribute to his wonderful war record."

The Wisconsin Humane Society has endorsed the Myers bill in a message to Senator Knute Nelson, chairman of the Senate Judiciary committee, before which the measure is pending.

Miss Elsie Janis, who spent many months in France helping to bring cheer into the lives of the American doughboys, has this to say for their faithful four-footed comrades:

"During my happy months with the A. E. F. in France I had plenty of chance to study the important role played by the dog in the world's 'big show,' not only as an active friend in hundreds of cases, but as the friend and comforter of the fighting man. I could write a book on the bravery, usefulness and undying fidelity of that friend of mankind."


"I have seen dogs in the front line trenches, dogs that went over the top with the men, dogs that carried messages where a man would have failed, and now I come home to be absolutely shocked by the fact that Americans would even hesitate for a moment about passing a bill which would assure at least the lives of American dogs."

"I have always been proud of the fact that Americans were humane. All over Europe you may see horses being worked too hard, but even Germans are kind to their dogs. We spend thousands sending missionaries to barbarians in distant lands, trying to teach them the beauty of human kindness, and then at home our men of science boast of the fact that they can remove the spinal column of a dog and still keep the dog alive for a few hours—the dog, which is practically a member of the world's big family. Surely no barbarian could ever think of such arch cruelty; he might kill, but he is not educated enough to torture; such acts come with civilization."

"We are living in a very hardened world." One of the few remaining gentle things in it is love of animals. If science must be fed, let it be fed with animals that were made to eat, and leave our dogs—our only friends that nothing can change. Money, jealousy, greed, old age and a hundred other things can wreck human friendship, but the old



"Sargeant" Poncho and His Master and "Buddies"



"Bigger than Weather"

The Premier Overcoat of America

A COAT that every man needs in his wardrobe. Once worn, we are certain no other coat will quite take the place of this Patrick Product.

The fashionable lines, the excellent tailoring of Patrick Greatcoats, are as distinctive as the famous north country cloth of which they are made.

There is no other cloth just like Patrick cloth. It is essentially a north country fabric, made from the thick long-fibre wool of "sheep that thrive in the snow."

The Patrick label, whether on Greatcoat, Mackinaw, Blanket, Robe, Sweater, Cap or Stocking means that it is made of pure long-fibre wool from northern sheep.

Two books: Our new catalog contains many styles for men, women and children—and true-to-life Patrick colors. "Bigger Than Weather," by Elbert Hubbard. Both are free.

Ask your dealer for Patrick Products. If he does not carry them, we will gladly direct you to one who does.

PATRICK-DULUTH WOOLEN MILLS
No. 1 Avenue A Duluth, Minnesota



Pure Northern Wool

from Sheep that thrive in the Snow

dog's tail that once wags for you wags on, come what may.

"Any one who had a boy in France, ask him about the dog that licked his hand when he felt blue and did not ask him for anything in return but a kind word. Ask him if he does not think the Myers bill should be passed. The doughboys would kill Germans like flies, but a dog is a boy's natural pal."

"O, please, everybody let's pass the Myers bill."

STUDENTS PRUNE TREES

Ohio schools of vocational agriculture report class project work in taking care of near-by orchards. The students prune the trees, spray them, and use fertilizers on the soil, leaving a few trees untreated for check purposes.

ABERDEEN-ANGUS 54, Herefords 7, Shorthorns 6 Cross-breds 2, Mixed 1



That's the official summary of the inter-breed steer grand championships at the Chicago International Live Stock Exposition since the first show in 1900. It covers single steer, steer herd, carlot and carcass. Aberdeen-Angus steers have won the carlot honors at 14 shows out of 18 and the carcass title 17 times to 1 for all other breeds, crosses and grades. Write for literature.



American Aberdeen-Angus Breeders' Association

817 CM Exchange Ave.

Chicago

Chicago's High Record



Yearling Shorthorn Steers sold July 20 at the Chicago yards at \$17.25 per cwt., the high price of the year. These Nebraska yearlings weighed 1,076 lbs. and sold for \$185.61 each.

July 22, 28 Shorthorn yearlings averaging 891 lbs. bred and fed in Illinois sold for \$17 per cwt., and averaged \$147.90 per head.

Last year 134 Shorthorn cows in Canada made milk records from 7,000 to 17,723 lbs., 31 from 10,000 lbs. up.

It pays to grow Shorthorns.

American Shorthorn Breeder's Association

13 Dexter Park Ave.

Chicago

Fairland Stock Farm

offers Hampshire and Shropshire rams and ram lambs by the carload or singly in crates at just a little above mutton prices; also a few ewes and ewe lambs.

D. J. STAHLY, Proprietor

Middlebury

Indiana

OXFORD DOWNS

Yearling Rams and Lambs
Yearling Ewes, Breeding Ewes
of all ages.

Write at once for prices

HIGHLAND STOCK FARM

W. D. McGILL & SON, Props.

Breeders Pure Holstein, Friesian
Cattle and Oxford Down Sheep.

TEMPLETON WISCONSIN

Demonstrations Help Land Clearing

JOSEPH A. JEFFREY, land commissioner of the D. S. S. & A. Railway, reports unusual interest in the clearing of land by means of combined use of dynamite and machinery, as the result of demonstrations recently held along the route of the company's right of way.

"I believe that a great many acres of land will be cleared this season that might not have been touched had it not been for the demonstrations," Mr. Jeffrey said.

Show Ring's Value in Fostering Better Cattle

THE visitor at the large cattle markets of the United States twenty to thirty years ago, viewed a much different type of cattle than the visitor sees today at the same yards. Steers came to market then 4 to 6 years old and even older. They were larger, rougher and represented much more feed and labor, than the present day type. A visit today will still show thousands and thousands of narrow thin scrub beeves yet the general type and conformation has been improved. The ages of these cattle are found to be for the most part yearlings, two's and three's. From the standpoint of breeder, feeder, packer, and consumer, the earlier maturing, easier feeding type has proven the most profitable and most satisfactory.

The breeder and feeder desires steers which will produce the greatest amount of high quality beef, from the least feed, in the shortest possible time. The younger type of cattle do not tie up the capital for half the time that was formerly thought necessary to produce a marketable beef and a quicker turnover of the working capital is thus possible. Higher priced farm lands, feeds, and labor have made these changes necessary. No doubt the transition would have taken place without the influence of our live stock fairs and shows but I think all will agree that the changes have been brought about much more quickly than would have taken place otherwise. It was at the shows that the stockmen first saw what could be done in feeding younger cattle. Of course the change was gradual but in the contests at the shows some exhibitor would present for approval a superior single steer or carload lot that were equal to other steers on the ground in every respect, yet much younger in age. A novice could readily see the advantage of this in the production of beef since the production in a shorter time meant less feed, less expense, and a quicker return.

There is an old saying, "that seeing is believing," and to see one has to attend the stock shows. The pride of every man in every business is to do his work better than his neighbor and when he has accomplished this the natural thing to do is to show his neighbor what he has done and compete with him. The live stock shows furnish a medium for this competition, hence the most modern methods are exposed and explained to the public. As a result the fairs and shows have become the school for the breeder and feeder. When the best judges in the country of the best cattle in the country made younger animals the champions and grand champions, breaking the time honored precedents, it caused the cattlemen to think along different lines and created new ideas.

When you or I go into a store selling merchandise of any sort, from drugs to hardware, we find the merchant has ample space to display his wares. There are show cases, displays, and show windows. In merchandising, it has been found essential to have abundant space to present to the public the articles he has for sale. The live stock shows are the show windows of the cattlemen. Here are to be seen the best that is being produced in every branch of the cattle business. Depending of course upon the extent of the show, the classes range from the best single steers to carlots of short fed cattle, feeder cattle, and prime beeves of various ages. The qualifications for certain classes require that record be kept of the amount of feed used in making the gains and the keeping of an accurate record showing the cost of gain which facts are taken into consideration when the judges arrive at their conclusions. The stockmen can go to the show, study the various types presented, and determine what are the best methods to follow for his own conditions. He is enabled to see

the type of cattle which bring a most money as feeders and the which gather in the high dollar prime beef.

The show is the university of cattle business. Not only does show stimulate the breeder and feeder of market cattle to handle a better type of cattle, but it interests them in the methods by which the best classes and grades of market beef are obtained. In order to demonstrate the farmer and cattlemen the merits of their breed and their own cattle, particular breeders of pure bred cattle maintain and exhibit at the leading shows and fairs, animals of groups of animals representative of their herds. These show herds represent the best cattle that are being produced. The purpose in exhibiting these show herds is to show the farmer what can be done through intelligent feed, care, and breeding. To the average stockman, the view of the cattle inspire the desire to use better sires and improve their herds. It gives them an opportunity to study the types of cattle produced by different breeders and thus know where he may purchase the class a type of bulls he desires when in the market for such stock.

Each class of the show and showing is a lesson to every breeder. There the opportunity is given to study carefully the various types produced by the different breeders, to compare the cattle of the same ages, as bred by the several exhibitors. The visitor is enabled to judge by comparison the strong points and weaknesses of the cattle exhibited and determine the ideals which he thinks best. Also the opinions of the judges are unfolded before the eye of the visitor. From these exhibits a comparison of one's own judgment may be made with that of the official judges who are picked as being authorities in their line. Furthermore one can attend a large fair or stock show and in a week see representative exhibits from a great number of herds. If one endeavored to go to the respective farms of the owners, a great deal more time would be consumed, considerable larger expense incurred, at direct comparison of the animals from different herds would be impossible.

From an exhibitor's standpoint at the person in the market for his class stock, the show provides a meeting place and an opportunity for immediate and future business.

There are but few persons in the world who do not love an animal—some kind, whether a dog, cat, horse, rabbit or cow. There are others who have a hobby for fine paintings, works of sculpture, art, etc., but there is a class of people who take more pride in their work than the breeder of pure bred cattle and what greater artists are there than the man or woman, if we have many women breeding pure bred cattle who mate living creatures producing and developing these creatures to the utmost perfection possible. This is an art that we find practically every case is shared in by all members of the breeder's household and is usually carried on by the younger generations as the years go on.

There is a famous saying that, "no matter how far off the beaten track person is, if he can make a better mouse trap than already has been made, a beaten path will lead to his door to obtain the same." The same applies to the breeder of superior cattle but it is unnecessary to say that if the breeder will take these cattle out to the world and show to the world what he has done the grass will be worn from that self same path much sooner and with greater profit to the owner.

Boys in the vocational agricultural class at Cleveland, Tenn., are starting broods with Rhode Island White eggs, a variety newly tried in that community.

Six Million Meals and What They Mean

IN 1894, when the Southern Pacific took over from the Pullman Company the operation of the dining car service, the company was the proud possessor of five "rolling restaurants." Three operated between Truckee and Ogden, one between Oakland and Sacramento and the fifth between Oakland and Lathrop.

Today the Pacific System has eighty-four dining cars and the Atlantic System twenty-one, making a total of 105, the largest number operated by any railroad in the country.

On the Pacific System alone over 6,000,000 meals were served last year by the Southern Pacific's Commissary Department under the direction of S. M. Estabrook, manager of the dining cars, hotels and restaurants.

Those 6,000,000 meals were served under a variety of conditions, locations, time and circumstances that no organization save that of a great railroad could successfully meet. While the Southern Pacific passenger was being whisked through the heart of the desert at fifty miles an hour he sipped his ice water and regaled himself with delicious ice cream without troubling as to how the miracle was accomplished.

Metropolitan cafes meet the high cost of modern service with a "cover" charge that far exceeds what the traveler pays for a satisfying meal served by the Southern Pacific. Yet the "overhead" on a dining car, measuring only seventy-seven by nine feet, is larger than any restaurant or cafe of similar size in the world. In addition to the high cost of railroad operation there is the high cost of the service which the American public demands and receives. New supplies of

Irish linen which formerly cost the Southern Pacific \$50,000 a year, now represent an outlay alone of over \$130,000. Over 10,000,000 fresh pieces were placed on tables in 1919, and the laundry bill amounted to \$82,000.

Silverware, glassware, china, cooking utensils, fuel, light, heat, labor—

all are numbered among the things which have driven many a hotel manager to despair and many a housewife into open rebellion.

Commissary and other expenses are such that when the average guest sits down on the dining car, the company has already expended in his behalf

67.4 cents before he has been served with any food.

Some idea of the problems that confront Manager Estabrook may be gained from a statement of the amount of food products which the company is called on annually to go out in the market and buy. Last year the Commissary Department bought 1,190,730 pounds of potatoes, an average of over 3,000 pounds a day; it invested in 240,000 pounds of sugar, 123,000 pounds of coffee, 200,000 gallons of milk, 4,900 gallons cream, 270,000 dozen eggs, 201,000 pounds of butter and other products in proportion. Its bill for thirteen staples alone, not including meats or canned products, ran up to \$750,000.

Then there are such trifles as \$2,000 menu cards and 6,000,000 checks, 1,000,000 "suggestion" and "special" slips and other printing costs.

The average restaurant has no repair bill worth considering, but the wear and tear on a diner is such that one out of every eight cars is constantly in the shop, and that means more money.

As to heat, ice, upkeep, schools for waiters, etc., a volume could be written on each, but enough has probably been cited to justify the assertion made by one caterer of national prominence:

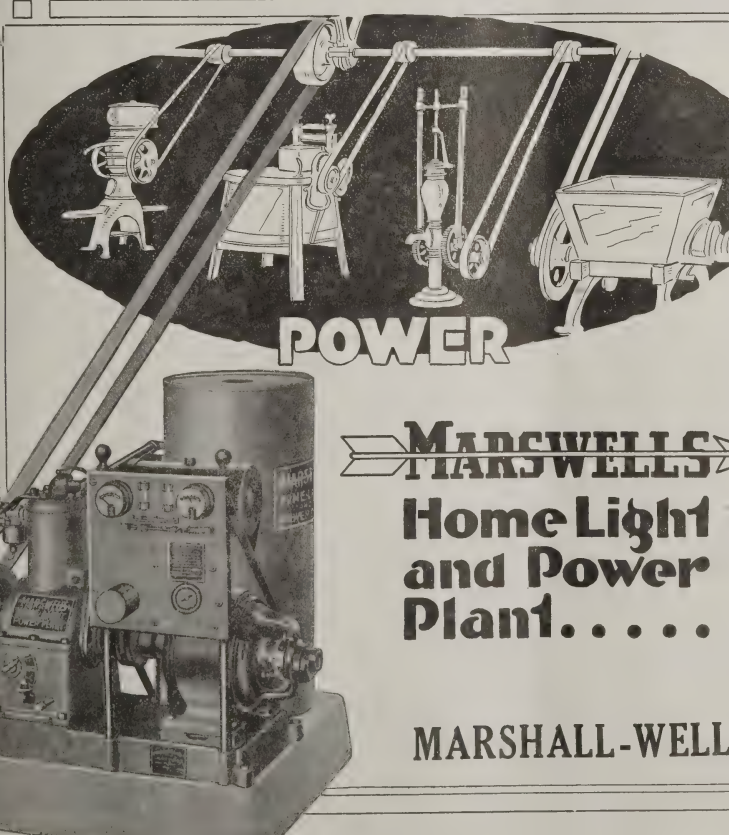
"The dining car is the commissary marvel of the age."

S. M. Estabrook, manager of the Commissary Department, believes there is a lot of wisdom contained in the following rules of conduct which a prominent executive laid down for the guidance of department heads. We


(Continued on page 26)



Interior of a Southern Pacific Dining Car Which Caterers of National Renown Declare "the Commissary Marvel of the Age." The "Overhead" Expense of the Dining Car is Greater Than That of Any Cafe or Restaurant of Similar Size in the World.



POWER



LIGHT

MARSWELLS

MARSWELLS

Home Light and Power Plan1.....

For a few cents a day, the MARSWELLS gives up-to-the-minute Electric Light and Power service all through your Farmhouse and Outbuildings; the School, Theatre, Church, Hotel, Factory, Store, House Boat, Camp, Summer Cottage, etc.

In this northern climate, our evenings are long. The pleasure during those hours, even in the home itself, may largely depend upon its brightness.

Our first considerations should be for our surroundings—to work and live under the most favorable conditions. Why not have home comforts in the country, as well as in the city?

The MARSWELLS will heat a flat iron, or operate a washing machine, ironer, vacuum cleaner, pump or air compressor for water-supply system, an emery wheel or grindstone, milking machine, separator and churn, potato digger, sewing machine, electric fan, hair-dryer, toasting, coffee percolator, or what-not.

It will grind feed, polish plowpoints, and sharpen tools—a good investment, is the MARSWELLS.

Send for a book of suggestions about lighting the home and re-charging the automobile battery with the same motor.

Give us the name of your favorite hardware dealer.

MARSHALL-WELLS COMPANY, DULUTH, MINNESOTA

The Only Trust Company In Cloverland

Superior Trust Company

HANCOCK, MICHIGAN

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THE SUPERIOR TRUST COMPANY

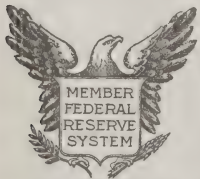
is authorized to act as:

Executor and Trustee Under Wills.
Administrator of Estates.
Guardian of Minor Children, Insane and Mentally Incompetent Persons.
Assignee and Receiver of Insolvent Estates.
Agent for the Registration of Certificates and Transfer of Bonds and Stocks, and the Payment of Coupons, Interest and Dividends.
Trustee for the Execution of a Trust of Any Nature.

Correspondence Solicited

OUR Certificates of Deposit afford a convenient and secure manner of investing any desired amount—with the principal always available.

CITY NATIONAL BANK
of Duluth



SAULT SAVINGS BANK

"THE BANK FOR YOU"
SAULT STE. MARIE, MICH.

AMERICAN EXCHANGE NATIONAL BANK

OF DULUTH, MINNESOTA

Checking Accounts	Foreign Exchange
Savings Accounts	Safe Deposit Boxes
Travelers' Checks	Bond and Trust Department

Total Resources, December 31st, 1919 Over \$20,000,000.00



Joy-riding on the Ice, and Going Some Without Danger or Fear of the Motorcycle Cop.

"Outside, Please, Outside"

(Continued from page 11)

that before we can combine the amusement and entertainment phase of the winter season with a realization of its possibilities as a health builder and revenue-getter, and before the municipalities will take hold with a vim to make it a go, our city officials will have to be talked to *by hand*—and shown, in black and white, where thousands of

dollars are going to waste every winter because they do not *see the light*. We should have a school of instruction with a couple of live-wire Canadian sport organizers to hammer home the argument. At any rate, let's think it over seriously before this winter. Surely it merits the thoughtful consideration of every good Cloverland booster.

COW TESTING WINS U. S. BONUS

Wisconsin and Michigan are the only midwestern states which will continue to receive federal aid in their cow testing work next year.

This recent announcement by E. T. Meredith, secretary of agriculture, is considered by officials of the Wisconsin College of Agriculture to be a recognition of the unusual expansion of cow testing work in Wisconsin.

"Today," says A. J. Cramer, in charge of cow testing in Wisconsin for the University of Wisconsin, "the state has 110 cow testing associations, which are actively eliminating the low producing dairy cows of their members. This number is far in excess of any other state. Furthermore all of the members of 42 of these associations use only pure bred sires—they have entirely eliminated the scrub bull."

"Recently reductions in federal appropriations for the department of agriculture, made it necessary for the

department to abandon its financial aid for cow testing work to ten eastern and mid-western states which were formerly on the list of states receiving federal support. Wisconsin is one of the few states in the country retained on the list.

"Yields of butter fat obtained in the cow testing association of Wisconsin is an example of their constructive work," declares Mr. Cramer. "Thus in 68 associations 3,169 cows yielded over 40 pounds of butter fat, a considerable number yielded over 50 pounds, and some as high as 96 pounds in 30 days. A knowledge of how to pick the profitable animals, and how to handle them to secure high production is a part of the educational work done by the associations and their testers, which can hardly be estimated in dollars and cents. The work is progressing so well in Wisconsin because farmers find it to be a paying proposition."

NEED BETTER WIRE SERVICE

Hundreds of thousands of dollars yearly are lost by farmers through errors in telegraphic transmission of prices.

Because of this fact, the Michigan State Farm Bureau will cooperate in the movement of shippers and business men to obtain a new telegraphic message classification, which would make telegraph companies liable for the full actual loss, damage or injury, caused by failure to transmit messages properly and accurately. A hearing on this subject was held at New York on July 26, when representatives of the Michigan State Farm Bureau, Chicago Board of Trade, National Traffic League, and others interested were heard.

An example of how vitally a new method is needed is the case of a large fruit shipper in southern Michigan. He quoted grapes extensively over the middle west by telegraph at 13c per pound in carload lots. Only one message went through at 13c. All of the other messages went through at 18c. Thousands of dollars were lost to this shipper as his competitor was able, as a result of this error, to dispose of his stock at 15c.

A graduated insurance system on messages is what is desired, similar

to rules governing insurance of express shipments, that is, shippers desiring protection against error in a telegraphic message would have the privilege of setting a value on that message and pay a rate based upon the amount of liability they desire telegraph companies to assume.

State Aids Hen Drive

A DRIVE on the scrub hen will be made during August, September, and October by forces representing the extension division of the University of Minnesota, the Minnesota Farm Bureau and poultry organizations in various counties.

The scrub hen is to be ousted by the proper culling of farm flocks. The oldest and fattest fowls are generally the poorest layers and they must go to make room for better stock. Fowls of medium class which show a fair profit will be retained. Hens suitable for breeding stock will, of course, be given leading place in the flocks.

Put saltines together with white frosting mixed with peanut butter. Use instead of cake at luncheon.

Why Should Our Bankers Be Interested in Birds?

By C. G. KREUGER

Cashier, First National Bank of Wausau, Wisconsin

Bankers are peculiar people; interested in so many things, ready to help in the promotion of all that is good and helpful, the better you know them the more you like them.

IT HAPPENED just like this: The cashier of the First National Bank, visiting the south, happened to stop at Louisville, Kentucky, and always being interested in what other bankers are doing, stepped into what, from the inside, appeared to be a very busy bank, and after talking with several of its officers, he soon discovered the reason for all the business and the good nature that was evident in the banking room.

He found that the men in the bank were interested in all of the activities of their customers, especially did he find these people interested in making agriculture profitable and successful. One of their ways to help the farmer was to conduct annual Bird House Building and Bird Painting contests. You will ask, "Well, what has the

building of bird houses or the painting of birds to do with farming?" The fact of the matter is birds are not only nice to look at and we not only enjoy their songs, but they are very useful to us all. Without our bird friends, the insects and bugs and other crawling things would soon destroy our crops and we would suffer hunger. We can therefore, from a purely selfish motive, welcome our bird friends and make their stay among us undisturbed.

But there is another side. Who does not love to see a beautiful bird flit to and fro, singing his happy song, and trying his best to be friendly with his human neighbors? We can well afford to make these bird friends of ours welcome and happy in our midst and no boy or girl should ever destroy a nest or a single bird life, but constantly plan for their comfort and well-being by building comfortable homes for those that like to live in our hand-made bird houses, and provide plenty of clean water for drinking and bathing purposes, and in the winter time be especially thoughtful of those of our bird friends remaining with us. We will be repaid in many ways for thoughtfulness and kindness toward these friends of ours.

The local contest was a big success. More than 600 boys and girls built houses and painted birds, and they all had a mighty happy time doing it. Birds, like human beings, have funny notions about the houses in which they want to live. Before you build a bird house, we would advise you to carefully study the habits of the birds for whom you are planning to build a house. Mr. Wakelin McNeel, our county Y. M. C. A. secretary, we have discovered, knows a good deal about birds and their habits, and we would suggest that you have him tell you about them.

Fertilizer Shortage

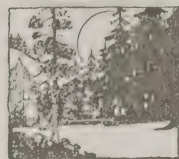
Because of a general shortage of materials and the uncertainty of the freight situation, farmers should order fertilizers for fall grains early this year. Acid phosphate is reported to be very scarce, and those who order late will not be able to obtain it at all, warns Dr. M. M. McCool, head of the Soils Department at the Michigan Agricultural College.

"It is advisable that fifteen tons or more be ordered in a lot," says Dr. McCool, "since this saves freight to the consumers. Fertilizer prices are somewhat higher than they were in the spring, but their use is profitable when the prices of grains are considered. At the present time it requires about one bushel of wheat to pay for 200 pounds of acid phosphate, and about 2 bushels of rye. To exchange for a 75 pound dressing of nitrate of soda or ammonia sulphate, about one and one-quarter bushels of wheat and two bushels of rye are required."

Fertilizer tests on the main soil areas of Michigan, conducted cooperatively by members of the soils section of the college experiment station, farmers, and county agents, are showing up well this year. Wherever acid phosphate has been applied, except to very productive soils, splendid results are found. About thirty top dressing tests with both nitrate of soda and ammonium sulphate on rye and wheat growing on sandy soils that have not produced clover for a number of years, or have not been manured recently, show promise of fine returns.

Where nitrogen is used it is customary to apply about 25 pounds in the autumn and about 40 to 50 pounds per acre in the spring, just after growth begins, according to Dr. McCool.

Bankers of Cloverland



Have played a big part in the development of this rich and growing territory. Their progressive policy in financing business and industry has turned the eyes of the Northwest upon Cloverland.

The First Wisconsin's facilities for handling the accounts of banks are unexcelled. We invite inquiries from bankers in Cloverland seeking a Milwaukee connection.

FIRST WISCONSIN NATIONAL BANK Milwaukee

Bank by Mail

WHEN it is inconvenient for you to come to town you need not worry about transacting your banking business. The First National Bank is as near your door as the telephone or mail box. A telephone call or a letter to this bank will receive prompt and careful attention. You will find it helpful at all times to make use of this service.

Saving adds 100% to the satisfaction of spending. The saver is a wise spender—gets his money's worth.

Special attention given and facilities offered to out-of-town patrons.

First National Bank

MARQUETTE, MICHIGAN

DESIGNATED UNITED STATES DEPOSITORY

Capital, Surplus and Undivided Profits In Excess of \$300,000

Co-operation among the farmers has proven exceptionally profitable.

We have over 20,000 members, who are co-operating in Saving. Today we have over \$6,880,000.00 making profits for them.

The largest Building and Loan Association in Michigan.

We have to offer to members at this time our pre-paid dividend stock on which we send check for interest at the rate of five per cent every three months. The dividend comes regularly—no fuss or bother.

Any time you want any part or the whole of your money—it can be withdrawn.

Send in your check NOW and receive your Dividend, October 1st.

\$30.50—a share pays \$1.00 quarterly.

\$805.00—10 shares pays \$10.00 quarterly.

\$8050.00—100 shares pays \$100 quarterly.

Detroit & Northern Michigan Building & Loan Association HANCOCK, MICH.

Under State Supervision

Authorized Capital, \$50,000,000.00

First National Bank of Iron Mountain Iron Mountain, Michigan Resources Over \$1,600,000

Officers:

E. F. Brown, President; J. C. Kimberley, Vice-President; W. J. Cudlip, Second Vice-President; F. J. Oliver, Cashier; Leo H. Martens, Assistant Cashier; J. W. Franson, Assistant Cashier.

Directors:

E. F. Brown, J. C. Kimberley, W. H. Scandling, A. Bjorkman, W. J. Cudlip, R. W. Pierce, Jr., R. C. Brown, G. O. Fugere.

These Strong Cloverland Banks Are Ready and Willing to Give Every Possible Cooperation to New-comers. They invite Correspondence.

First National Bank of Calumet

Calumet, Michigan

Capital \$200,000.00

CALL IN AND SEE US
We are always pleased to serve you

Officers: John D. Cuddihy, Pres.; Edward Ulath, Vice Pres.; Edward F. Cuddihy, Cashier; Daniel C. Harrington, Asst. Cashier; Pierce Roberts, Asst. Cashier

First National Bank of Bessemer

Bessemer, Michigan

Capital, Surplus and Profits,
\$150,000.00

Oldest Bank in
Gogebic County

ESCANABA

Is the leading city in Cloverland

The leading bank in that city is the

Escanaba National Bank

Correspondence Invited

The First National Bank of Alger County

Munising, Michigan

Officers: William G. Mather, Pres.; G. Sherman Collins, Vice Pres. and Cashier; John N. Korpela, Asst. Cashier

The State Bank of Ewen

Ewen, Michigan

Officers: L. Anderson, Pres.; J. S. Weidman, Jr., Vice Pres.; E. J. Humphrey, Vice Pres.; A. M. Anderson, Cashier; Directors: L. Anderson, Caldwell, Mich.; J. S. Weidman, Jr., Fruit Creek; E. J. Humphrey, Ewen; J. N. Howlett, Bruce Crossing; J. F. Fogelberg, Ewen; Nugent Dadds, Ewen; A. M. Anderson, Ewen.

First National Bank of Iron River

Iron River, Michigan

Capital, \$50,000.00
Surplus, \$20,000.00

We invite letters of inquiry regarding Iron County

Officers: Ellsworth S. Coe, Pres.; Wm. J. Richards, Vice Pres.; A. J. Pohland, Cashier

First National Bank of Marquette

Marquette, Michigan

Over \$2,000,000.00 Resources

Officers: Louis G. Kaufman, Pres.; Edward S. Bice, Vice Pres.; Charles L. Brainerd, Cashier

Marquette National Bank

Marquette, Michigan

Capital and Profits, \$100,000.00
United States Depository

We invite correspondence

Officers and Directors: J. M. Longyear, Pres.; D. W. Fowell, Vice Pres.; Chas. H. Schaffer, Vice Pres.; F. J. Jenkinson, Cashier; H. E. Fox, Asst. Cashier; E. A. Brown, Asst. Cashier; Daniel W. Fowell, Austin Farrell, Chas. H. Schaffer, Frank J. Jenkinson, A. T. Roberts, R. P. Bronson, E. L. Pearce, J. E. Sherman, J. D. Reynolds, John M. Longyear

First National Bank of Menominee

Menominee, Michigan

Resources Over \$2,000,000.00
Oldest and largest Bank in Menominee County and under same management for 32 years
Depository for United States and State of Michigan

Officers: G. A. Blesch, Pres.; John Henes, Vice Pres.; C. W. Gram, Cashier; A. J. Klumb, Asst. Cashier

The Lumbermen's National Bank

Menominee, Michigan

One of the Oldest and Strongest Banks in Cloverland

Officers: Warren S. Carpenter, Pres.; Wm. Webb Harmon, Cashier

Commercial Bank of Menominee

Menominee, Michigan

"The Bank of the People"

Invites correspondence from prospective settlers. You can bank by mail with us

Houghton National Bank

Houghton, Michigan

United States Depository
Capital \$200,000.00
Surplus \$200.00
Undivided Earnings \$250.00

Officers: J. H. Rice, Pres.; W. D. Calverley, Vice Pres.; A. N. Bandin, Vice Pres.; C. H. Primodig, Cashier; R. T. Bennalack, Asst. Cashier; Edward Romp, Asst. Cashier; F. C. Stoyke, Asst. Cashier

The Newberry State Bank

Newberry, Michigan

Capital, \$30,000.00
Surplus, \$6,000.00

General Banking Business, Commercial and Savings Department
3% Interest paid on Savings Deposits

Officers and Directors: F. P. Bohn, Pres.; W. G. nets, Vice Pres.; L. H. Fead, Vice Pres.; E. M. Chamberlain, Cashier; E. L. Frost, Andrew Weston, J. C. Foster, Matt Surrell

First National Bank of Sault Ste. Marie

Sault Ste. Marie, Michigan

Since 1886 this strong bank has been interested in the growth and development of Chippewa County. Correspondence invited

Officers: R. C. Ferguson, Pres.; Otto Powis, Vice Pres.; Chas. S. Osborn, Vice Pres.; E. H. Mead, Vice Pres.; Fred S. Case, Vice Pres. and Cashier

First National Bank of St. Ignace

St. Ignace, Michigan

The oldest and largest Bank, and the only National Bank in Mackinac County

Your business inquiries will receive prompt and courteous attention

Officers: O. W. Johnson, Pres.; E. H. Hotchkiss, Vice Pres. and Cashier.

The Marquette County Savings Bank

Marquette, Michigan

Officers and Directors: H. L. Kaufman, Pres.; S. R. Kaufman, Vice Pres.; G. A. Carlson, Cashier; O. E. Barber, Asst. Cashier; E. J. Hudson, E. S. Bice, Louis G. Kaufman, Chairman Advisory Committee



Corner of Commissary Kitchen Where Food is Prepared for the Dining Cars. The Bill for Thirteen Staples, Not Including Meats and Canned Goods, is \$750,000 a Year.

Six Million Meals and What They Mean

(Continued from page 23)

think so, and herewith print them as they were sent by Mr. Estabrook to stewards and others all over the system:

Be sure you know the subject of your instructions before you give them. Knowledge of your job always commands respect from those associated with you.

Encourage your men to come to you for information, and take pains to look it up and supply it. Help them in anything they may want to study.

Train them to think for themselves by putting it up to them on all proper occasions and explain why you do it.

Always be considerate of inexperience. When reproof will correct a small fault it is almost always a mistake to inflict punishment.

Be absolutely just. All kinds of

men respond to the square deal.

Avoid harshness in manner or method. Let penalties be inflicted in sorrow, not anger. Always give the man the benefit of any reasonable doubt.

Never hurt a man's self-respect by humiliating him before others. You will thereby impair his usefulness. A man who is called down in public will surely resent it. Frequent "sanding down" of your men is a common mistake.

Do not let the state of your liver influence your attitude toward your men.

Before you take any action or adopt any line of conduct that concerns one or all of your men, consider carefully its effect upon loyalty, development of character, upon the discipline of the organization.



The Southern Pacific Laundry Where 10,000,000 Pieces of Linen were Laundered in 1919 at a Cost of \$82,000.

Plowing for Fall Wheat

FALL wheat will do best on land plowed and prepared at an early date, in order that the seed bed may become firm and well compacted. A large percentage of the wheat crop follows oats and barley, according to Prof. J. F. Cox of the Michigan Agricultural College, and after the removal of these crops this land should be plowed immediately to a medium depth.

"Many farmers are unable to take

time or to find help at this season of the year to do the plowing," says Prof. Cox. "In this case it is suggested that the stubble be thoroughly disced as soon as the oats or barley is removed. Then when plowed later the ground will be in a more mellow condition. A good seed bed—firm and well compacted—requires six weeks or two months after oats or barley. It can be compacted only by allowing time for settling and using the roller."



Time of Sowing Winter Rye and Yield per Acre, left to right: Sept. 1, 31.3 Bu.; Sept. 15, 26.1 Bu.; Oct. 1, 23 Bu.

Field Crops in Northern Minnesota

(Continued from page 9)

this improved corn is being distributed. This corn is sufficiently early to produce seed in normal seasons, and being large and leafy it is one of the best for fodder and silage. We do not recommend it to be grown for ripe grain in this district except on farms that are very favorably located. Early flint varieties are preferable for ear corn and for hogging off, the common Squaw Flint corn being generally recommended.

Both the climate and the soil of north central Minnesota are favorable for potatoes. The potato crop is the main crop grown for market on most farms in the territory. Grown on land newly cleared or on land previously in clover, the yields are large and the quality unexcelled, so that on most farms the potato crop is given a place among the major field crops in the rotation.

Investigational work with potatoes has therefore been given due attention. This work may be summarized under the following headings: (1) Variety testing; (2) potato improvement; (3) fertilizer treatments; (4) cultural methods, and (5) field practice.

Variety testing has been carried on for the last twenty years, and has included a large number of varieties. The results from these tests have been reported from time to time in station bulletins. The most promising varieties, however, include those adopted in 1916 by the Minnesota Potato Growers' Association as the standard varieties for Minnesota. Since then the work has been limited to these eight standard varieties and one other, the "Itasca," a Green Mountain seedling propagated from seed gathered at this station by George F. Kremer of Grand Rapids.

All varieties under test, except Green Mountain and the Green Mountain seedlings, were purchased from growers in the state in 1916 and 1917 and were from the very best stock obtainable. The Green Mountain potatoes are from stock grown at this station for many years. Throughout the testing work this variety ranked as one of the largest yielders and is a most satisfactory all-round potato. The Green Mountain seedling, the Itasca, is quite similar to its parent in color of blossom, leaves and tubers. The vines, however, are less spreading. The tubers are smoother than those of the true Green Mountain and the ends are more rounded. There are fewer overgrown, rough tubers. The eyes are somewhat shallower. The flesh is uniform and firm. The cooking quality is excellent and the flavor pleasing.

The potato improvement work has for its main object the development of superior seed strains and their distribution to potato growers both in this state and in other states. This work is being done in co-operation with Dr. William Stuart, Chief of Potato Investigations in the United States Bureau of Plant Industry.

The practice at this station is to have clover precede potatoes in the rotation. The soil on most of the station fields is a sandy loam. If the meadow is infected with quack grass, it is plowed shallow after the hay crop has been harvested and left fallow without further tillage until late fall when it is thoroughly disked and left open for the winter. Stable manure is applied during the winter and early spring and is incorporated with the soil either by disking or by harrowing with a spring-toothed harrow. Just before planting the field is again plowed from six to eight inches deep

(Continued on page 40)



An Improved White Yorkshire Dressed 546 Pounds

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(Continued on page 40)



Oats on Peat Land, left to right: Lime and Phosphate; Lime and Phosphate; Lime, Phosphate and Potash; Phosphate and Potash; Check, No Fertilizer.

McCartney National Bank

Green Bay, Wis.

Capital and Surplus, \$600,000.00

We are deeply interested in the development of Northern Wisconsin along commercial, manufacturing and agricultural lines. Write or call and see us.

Bridges Burned

(Continued from page 18)

conditions. He had entered a competition, therefore he decided to condition himself physically and mentally for the race. A doped pony cannot run, neither can a worried salesman sell goods.

In line with this decision, he took one of the best state-rooms on the Lucania, and denied himself nothing that the ship afforded. Every morning he took his exercise, every evening a rub-down. He trained like a fighter, and when he landed he was fit; his muscles were hard, his stomach strong, his brain clear. He went first-class from Liverpool to London; he put up at the Metropole in luxurious quarters. When he stopped to think about that nine hundred and twenty, already amazingly shrunken, he argued bravely that what he had spent had gone to buy condition powders.

On the way across he had posted himself so far as possible about the proposed Robinson-Ray plant. He learned that there were to be fifteen batteries of cyanide tanks, two high-eighty-four in all—supported by steel sub- and super-structures; the work to be completed at Krugersdorp, twenty miles out of Johannesburg, South Africa. The address of the company was No. 42½ Threadneedle Street. Threadneedle Street was somewhere in London, and London was the capital of a place called England.

He knew other African contracts were under consideration, but he dismissed them from his thoughts and centered his forces upon this particular job. Once he had taken a definite scent his early trepidations vanished. He became obsessed by a joyous, purposeful, unceasing energy that would not let him rest.

(To be continued)

One secret of success in drying fruits and vegetables is to avoid too long heating and too high temperatures.

The First National Bank of DULUTH

At the Center of Cloverland

CAPITAL, SURPLUS and PROFITS

\$3,250,000

THE development and progress of Northeastern Minnesota has for 38 years been the interest of this bank. In the future of this community and in the success of its people we have a vital concern

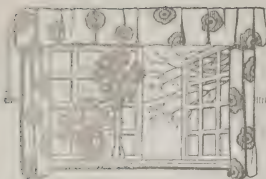
Talk your problems over with us or consult us by mail.

W. P. WAGNER, Pres. H. S. ELDRED, V.P.
GEO. D. NAU, V.P. H. P. KLAUS, Cashier
R. W. SMITH, Asst. Cashier

Citizens National Bank

Capital and Surplus \$500,000.00

GREEN BAY, WISCONSIN



Woman and the Home

By HARRIET L. HARLOW



OUR SEWING CORNER FOR MOTHER and LITTLE SISTER

I WONDER how many of our mothers can remember when they first began to sew. Oh, how much fun we had sitting beside grandmother and learning to make the different stitches. Yes, that is what we have to do when we are wee little girls. "How many different stitches are there?" I hear one little Miss of seven ask.

Now, mothers, as the fall days come upon us with the cool evenings, why not teach little sister and possibly even big sister, to sew along with us? I have a little girl of ten and let me tell you the many things she has made. She began with her stitches on plain white muslin. Then came the hemming of towels, making small pin-cushions and needle-books, little doll aprons, a kimono, a fancy tea apron for mother with lace set in, a crash toweling sewing bag with name embroidered, a knitting bag, and last, but not least, an apron for herself of pink gingham trimmed with bands of white bias lawn, with a Jack and Jill embroidered on it.

She began to sew when she was eight and each year we take up a few

more steps. Now she uses the sewing machine with a motor attachment almost as well as her mother.

But first we must fit out the little Miss with her work basket, as it would spoil all pleasure to have to borrow from mother all the time. The work basket should contain:

1. Spools of cotton, white, Nos. 36, 40, 50, 60, 70, 80, also one of red, No. 50.
2. One spool of basting cotton.
3. One little round emery bag to brighten and sharpen needles.
4. Pins.
5. A piece of beeswax.
6. A tape measure.
7. A pair of scissors.
8. A paper of needles—Nos. 5 to 10.
9. Some unbleached muslin.
10. Thimble.

And now, where do we place the thimble? On the second finger of the right hand. Then we must thread our needle. We hold the needle in the left hand with the eye up and we put the end of the thread broken off next the spool through the eye of the needle so that it will not kink.

Now mother must show the little Miss how to know the thread. This is very funny, of course, to the little girl, but after explaining that the knot holds the thread as she sews, she immediately must know how to fasten a knot.

To Make the Knot

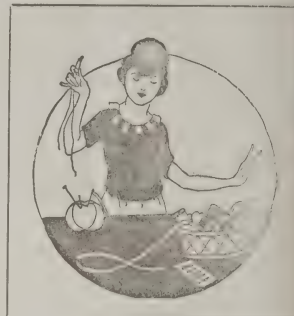
1. Wind the thread around the tip of the first finger of the left hand.
2. Press it with the thumb and roll the thread downward to the tip end of the finger.

3. Now bring the second finger over the thread on the thumb.

4. Then draw the thread tight with the right hand as you hold it.

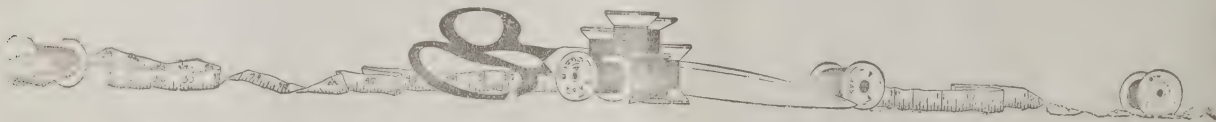
Now we have had our first lesson as we might think, and perhaps we can hear mother say, "Needles and pins! Needles and pins! This is where your lesson begins! Now, thread your needle and knot your thread, if you know how—just do as I've said."

"Very good," says mother, and now how many stitches do you know? The only ones she can really think of are basting, running and hemming, but



mother must name them all for her: Even and uneven basting; overhanding; running; catch stitching; back stitching; buttonhole stitch; half back stitching; darning; overcasting; blanket stitch.

"My goodness," says the little Miss. "I never dreamed there were so many, and, mother, will I ever learn them all?" If you will only follow up these little lessons which I am going to try and show you, I am sure you can. In the next number of our magazine I will show you the different stitches and how to do them.



CARING FOR OUR WINTER VEGETABLES

DURING the months of July and August we can a good many vegetables along with the fruits, but still there are many vegetables to be stored for winter use.

With most vegetables storage is preferable to canning, as it is cheaper, requires less work and the flavor is improved, due to the fact that the vegetables are placed in the dirt or sand.

Different vegetables have to be stored separately and in different ways. There is one requirement, however, that is common to all—the vegetables must be sound, that is free from decay or bruises. The late variety, or those known to be the best keepers, should be selected. It would be foolish to store early cabbage or early potatoes.

Cabbage should not be over-mature, as this causes the bursting of the heads. It must be handled with care, not bruised, and for cellar-storage, wrapped in paper and placed on shelves or in barrels in the coolest part of the cellar, where the temperature does not go below freezing.

Carrots, beets, turnips, rutabagas, parsnips and salsify all demand about the same storage conditions. The late varieties of these crops are best for storage. Carrots, beets, salsify and parsnips should be planted around May 1st to have the best storage crop. Carrots and beets should be stored in sand in a cool cellar and the sand moistened occasionally. Salsify and parsnips should be left in the ground and covered sufficiently deep to prevent freezing, as they are spoiled if frozen. They are better for use in the spring than fall.

Onions for storage should be planted early, particularly if seed is to be

used, in which case the seed should be sown as soon as the ground is fit to work. They should be allowed to mature fully, which will be noticed when the stems begin to drop over. They may then be pulled and allowed to lie in the sun for three or four days to

dry. The tops must then be taken off and onions placed in a warm, dry place. They must not be allowed to freeze nor must they be kept too warm.

The best squash for winter storage is the Hubbard. The squash and pumpkins should be kept in a fairly

dry temperature. Only mature specimens should be stored. They should be taken in late in the fall before the frost is sufficient to injure them.

There is still another method of winter storage of vegetables for the family who has a fairly large garden and a small cellar.

Cabbages, carrots, beets, turnips, parsnips and salsify may be stored outdoors, either in trenches or pits.

In this method of storage only the outer leaves of the cabbage are removed from the head and the stems left intact. The trench, about 6 inches deep, and wide enough to accommodate 3 heads of cabbage, placed sideways, is dug in a well-drained location. Three or four inches of dry straw or leaves are placed in the bottom of the trench and the heads are placed in rows of three on this material. The stems of the outer heads are sloped toward the center. When the desired number of cabbages are in the trench they are covered with about 6 inches of soil. After the upper inch or two of the soil has frozen another layer of leaves or straw is put on to prevent alternate freezing and thawing. Pit storage does not differ from trench storage except that the pit is usually round and somewhat deeper than the trench.

Make your pan holders square and of very heavy cloth. Leave one side open so as to slip the hand in as into a pocket. This protects the back of the hand as well as the palm.

Instead of bothering with the troublesome corks in your salt and pepper shaker use gummed paper stickers over the holes.



FASHION HINTS for FALL



THE day of gloves and veils is at hand again. You can wear your summer sailor hat and sport suit far into September, but spic span and new must be your neckwear and gloves.

Very smart, indeed, with the fall suit, is a collar and cuff set, made of soft Irish linen and hemstitched in a neat and dainty border effect. With white gloves of washable kid the linen neckwear gives its wearer a trim, tidy look that is most engaging, and both

neckwear and gloves can be laundered frequently and kept in spotless condition.

With the formal dancing frock for theater wear one must wear long gloves. That is fashion's mandate. The evening gloves come in 8, 12, 16 and 20 button length, and the smartest of these are made from suede. Be sure to get your gloves sufficiently large. Gloves that are roomy and loose are more comfortable after a trip to the cleaners, and

evening gloves must be cleaned often and kept spotless.

To wear the veil right just now instead of hiding the border of the veil under the chin we find it *vice versa*, over the brim of the hat. Many new autumn designs are done in leaf design with heavy silk floss. They have odd hexagon patterns, being crossed by a finer, ladder pattern running crosswise.

Then, too, we must have plenty of little collar and cuff sets for the dinner dress and the smart blouses. Many are made of net, with yards and yards of lace ruffles. Others have straight collar effect, lace trimmed, with pretty designs embroidered and a bodice effect of ruffles of same material edged with lace. There is something very

sweet and feminine about a close-fitting little short-sleeved bodice plus a frilled fichu in surplice style. No woman could hope to look mannish or efficient in such a combination, for it is essentially feminine and appealing.

Very pretty fishus are made from white chiffon, with a double frill scalloped and finely pleated. These fishus are very graceful when worn over simple little frocks of dark blue taffeta. Ruches should trim the short sleeves and several rows of ruches should be put on the straight gathered skirt. Then the gown is complete, with only the fluffy chiffon collar as a trimming.

There are few changes in fashions as the months move on toward autumn. Dresses of velvet or black satin still are very popular. The basque effect is used in the waist with the full skirt.

For early fall wear white still reigns supreme. Next to white it may safely be said that yellow is the chosen color.

The gowns and dresses of white for fall wear are made of heavy woolen stuff. Though expensive, white is always elegant and always desirable by reason of the many effects which may be made in a white toilette by a change of shoes, stockings, gloves or hat. Many suits made from white gabardine, bound with white braid, are shown for the cooler days of fall. Over the shoulders are thrown the jaunty fur capes.

I have had the privilege of seeing several new fur coats, which are already prepared for next winter. That the fullness flares considerably toward the hem seems a clear indication that fuller skirts in everything except tailored costumes will be used. Naturally, the fuller skirts will be longer.

The fur coat shown in the illustration is full length and decidedly practical with its full shawl collar, deep pockets and bell sleeves. But its very simplicity creates an atmosphere of luxury which appeals to matron and maid alike.

Fashions in Brief

HATS with transparent brims are in favor for dress occasions.

The Scotch plaid silk blouse, brought out earlier in the season, now has an active and very attractive rival in the blouse of plaid or checked gingham.

Pink-checked batiste, sheer but not too sheer to be practicable, and embroidered in satin stitch with roses, daisies and other flower designs, is shown among exhibits of pretty lingerie.

Old neckties make beautiful patch work comfort tops or couch covers.



Lauerman Brothers Department Store, Marinette, Wis.

Modern Business Service

WE want Cloverland grazers and farmers to look at this store in that way. We are here to serve you carefully, courteously and whole-heartedly.



The Marinette Store
Whose Perfect Service by Mail
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You can purchase by mail just as satisfactorily as if you were in Lauerman's Store in Marinette, doing your buying personally. Your goods are shipped same day order is received.

YOU CAN SAVE TIME, FREIGHT
AND MONEY BY SENDING IN
YOUR MAIL ORDERS TO US.

It will be of great benefit to you to have your name on our mail-order list and receive price lists and quotations on whatever you need.

As Standard as Gold

There are certain grocery products that are as standardized as gold—as dependable as the seal of the government.

They give character to a store, establish confidence in the storekeeper, and in the long run yield more profit than fly-by-night products.

You know them. Name them one by one, beginning with

ROYAL Baking Powder

Absolutely Pure

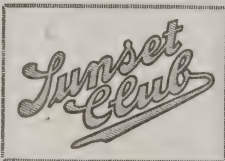
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It pays in more ways than one to sell Royal



Truly a Quality Coffee

*It is the result of twenty-two years
of careful and intelligent blending
by coffee experts.*



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ROASTED and PACKED BY

JOANNES BROS. COMPANY

GREEN BAY, WISCONSIN

Recipes from the Kitchen

DO YOU KNOW the use of your casserole and the many wonderful good things to be made in them? And the glass baking dishes? Every kitchen should be equipped with a casserole and a complete set of these wonderful dishes. No burning on the bottom of bread, pies or cakes if the glass dish is used.

Buttered Apples

Peel, core and cut in eighths ten large apples and arrange the pieces neatly in a greased baking dish. Add $\frac{1}{2}$ cup of sugar and 1 teaspoonful of vanilla extract. Cover the top with small pieces of butter, then cover and bake until apples are tender. Cover with marshmallows just before leaving the oven and allow marshmallows to brown slightly. Serve with whipped cream.

Cauliflower au gratin

Cook a large cauliflower until tender in boiling salted water, then drain and plunge into cold water. Drain and divide into small pieces and place in a greased casserole. Cover with a well-seasoned white sauce, sprinkle over one-half cupful of bread crumbs and the same quantity of grated cheese mixed together, and brown in a quick oven. Serve hot.

Vanilla Custard

Mix 4 eggs with 4 tablespoonfuls of sugar, add 2 cups of milk and 1 teaspoonful of vanilla extract. Stir well and strain into greased custard cups. Set in a pan of hot water and bake in a moderate oven until firm. Decorate each with a preserved cherry or strawberry and serve hot or cold. If served cold a dash of whipped cream added and then the fruit makes a pretty dish.

Chicken en Casserole

Cut all the meat from two chickens into pieces for frying. Put the bones to cook in one quart of water with salt and pepper to taste, one garlic clove and a dried stalk of celery. Simmer until reduced to one-half. Fry the chicken in butter or lard and arrange in casserole. Over this put one cupful



of cooked rice, pour in strained stock and bake in oven for one and one-fourth hours.

Duck en Casserole

Take one cooked duck. Cut it into neat pieces. Melt two tablespoons drippings and toss pieces of duck into it. Sprinkle in one tablespoon of flour and dry a light brown. Add two cupfuls of stock, or water, stirring until it boils. Add one chopped onion, parsley and one bay leaf, one teaspoon lemon juice, one-half teaspoon meat extract and a few drops of kitchen bouquet. Cook slowly in casserole 40 minutes. Remove bay leaf and add salt and pepper before serving.

I have combined these two dishes by taking the left-over of a chicken and duck dinner and use one of the two recipes for the casserole.



Relishes for the Winter

Corn Relish

- 20 Ears corn.
- 1 Medium head cabbage.
- 4 Green Peppers.
- 6 Red Peppers.
- 4 Onions, chopped.
- 1 Teaspoon celery seed.
- $\frac{1}{2}$ Cup salt.
- 2 Cups Sugar.
- $\frac{1}{2}$ Cup flour.
- $\frac{1}{2}$ Teaspoon tumeric.
- $\frac{1}{2}$ lb. Coleman's mustard.
- 1 qt. white vinegar.

Cut corn from cob; cabbage, onion and peppers through food grinder. Mix flour, tumeric and mustard. Stir in the vinegar gradually at first, then

let come to a boil. Add the rest of the ingredients and boil $\frac{1}{2}$ hour. Bottle. Add more vinegar if necessary. Seal.

Green Pepper Relish

- 6 Green peppers, cut fine.
 - 3 Small onions, cut fine.
 - 2 Tablespoons sugar.
 - 1 Teaspoon salt.
- Cover with cold vinegar, bottle and seal.

Green Tomato Relish

- 2 qts. green tomatoes.
- 4 qts. chopped cabbage.
- $\frac{1}{2}$ Dozen medium onions.

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Truly Expressed by
Flowers or Emblems

from

DULUTH FLORAL CO.,

Duluth, Minn.

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by using cheap ingredients is poor policy. Yet many a dessert has been ruined by the use of inferior flavoring extracts.

**Van Duzer's Certified
Flavoring Extracts**



are made of the finest fruits obtainable. They are rich, pure, delicious and wholesome. Economical housekeepers prefer them.

Van Duzer Extract Co.
New York, N.Y. Springfield, Mass.



Making Jelly and Jam, a Delightful Occupation as Well as Providing Stores of Good Things for the Winter.

- 2 Small red peppers.
 3/4 oz. celery seed.
 1 Bunch table celery.
 2 Tablespoons salt.
 1 lb. sugar.
 3 pts. vinegar.
 1/2 oz. tumeric.
 1/2 oz. white mustard seed.
 1/2 oz. whole allspice.

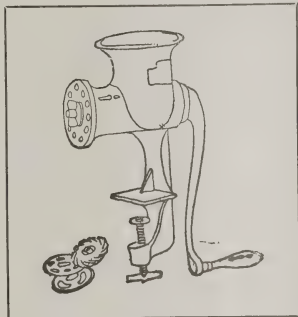
Chop the first 5 ingredients fine or use food grinder. Mix with the rest and boil 20 minutes. Fill in cans and seal.

Tomato Relish

- 1 pk. ripe tomatoes.
 6 Large onions.
 8 Red or green peppers.
 1 Bunch celery.
 1/4 Cup celery seed.
 2 qts. vinegar.
 2 lbs. sugar.
 1 Cup salt.

Put tomatoes, onions and peppers through food chopper. Place in bag over night with salt to drain. Add celery, cut fine, and celery seed. Boil sugar and vinegar and let cool and our cold over mixture. Place in wide-mouthed bottle and seal.

Every kitchen where canning and pickling is done should be equipped with reliable liquid measures, a quart, pint, and a half pint measure, subdivided into quarters, thirds and halves,



all made of durable material. A four-ounce glass graduate is excellent for measuring small amounts of liquids and checking up errors in larger quantities. A half-pint glass measuring cup is fine for measuring cold materials. It is so easy to read.

It is sometimes necessary to have a nest of dry measures from 1/2 bushel down to a quart.

A set of measuring spoons from 1/4 teaspoonful up to one tablespoonful is useful and does away with the difficulty of attempting divisions of the tablespoon, etc., especially when one-fourth teaspoonful of liquid is called for.

One of the handiest and most useful devices in my kitchen is the food grinder. In all recipes given above the food grinder comes into use.

Just a word or two about glass cans for putting away the products. In buying new cans today buy all glass top cans and do away with the old can covers. You will find very few cans of spoiled fruit in using the glass can top and they are much more sanitary and easy to keep clean.

Bread is more nutritious when milk is used.

Ziegler's Chocolates

Package Goods of
Paramount Quality
and
Artistic Design

Northern State Normal College MARQUETTE, MICH.

New Buildings

Excellent Equipment

Splendid Faculty

College Courses leading to A. B. degree—Normal School Courses for teachers of all classes—Special Courses in Art, Music, Manual Training, Home Economics, Kindergarten and Commercial.

The school has had more calls for teachers than it can supply
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DORIS I. BOWRON, Secretary

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Twenty Five Years of Success

proves that
the originator of

Postum Cereal

was building upon a sure foundation when he devised this most famous of all cereal beverages.

Where one used it in place of coffee, in the beginning, tens of thousands drink it today—and prefer it to coffee.

Healthful, delightful to taste and satisfying to every one at table.

Postum is now recognized as coffee's one and only great competitor among those who delight in a coffee-like flavor.

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ROSECO BRAND

Food Products

The Standard of Excellence in Greater
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Follow the Sign of the Rose

ROACH & SEEBER CO.

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CALUMET, MICH. MARQUETTE, MICH. HOUGHTON, MICH.
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Grand Hotel, Mackinac Island, Mich.

Mackinac Island

The
Summer Resort
of America



The art work of nature, Indian legend, and panoramic scenes that have made history in time of war and in time of peace all blend in harmonious welcome to tourists entering Cloverland through the southeast gateway, or bid adieu to the traveler after a sojourn at the wonderful Mackinac Island.

The island is justly famed for its scenery. The heights command views of sea and shore, ever changing with the varying lights and shades of the hours and the movements of passing ships. Well kept roads—thirty miles of them—lead in various directions from the village, through the woods, amid curious rock formations, now along the edge of the bluff with vistas of the lake, and again to some open outlook, whence the panorama is bounded only by the limitations of vision. There are gleus and ravines innumerable; open spaces which were the ancient gardens of the Indians; and delectable parks, whose clumps of shrubs and trees are so effectively arranged that one at first thought credits the artistic effect to the skill of the landscape artist rather than to the caprice of nature.

WRITE OR WIRE FOR RESERVATIONS

GRAND HOTEL COMPANY

MACKINAC ISLAND, MICH.

LOGAN BALLARD, President CHARLES A. HOLDEN, General Manager

How a Co-operative Association Has Made a Success

By CHARLES D. HANCHETTE

ALMOST \$7,000,000.00 has been accumulated in thirty-one years. Real co-operation is what accomplished the great result.

In 1889, 250 citizens of Houghton County joined together and founded the Northern Michigan Building & Loan Association. Today over 20,000 people of Michigan and other states, (for its fame is known throughout the nation) are investing their money together in a joint enterprise in which they are now making five per cent per annum.

In 1889 a young lawyer in Hancock wanted a home for himself and family; he was tired of paying rent so that he interested a number of prominent people, many of them bankers, in each of the larger villages of the Copper Country and formed a building and loan association, calling it the Northern Michigan Building & Loan Association. From year to year the association grew, affording thousands of members safe place in which to save their money and obtain larger rates of interest than could be secured by the wage-earners in other safe institutions.

For twenty years it helped to build up homes to thousands of families. Then the income and influence of the association was too great to be contained in the Copper Country—first it extended its offices to Marquette, Iron and Gogebic Counties; later on it opened up offices in Detroit, Flint and Pontiac. When it commenced doing business in the Lower Peninsula, the name was changed to the Detroit & Northern Michigan Building & Loan Association, and adopted a trade mark of the *Home of Thrift*.

It is now the largest building and loan association in Michigan and one of the most successful financial corporations of the state. It has been called the *Old Reliable* and handled many millions of dollars of its members. As it is co-operative, every member is a stockholder and participates in the profits; there are no special stockholders, who are preferred above others.

It has now assets of more than \$6,880,000.00.

Its loans are distributed in the—
Upper Peninsula \$1,630,955.00
Flint 1,609,692.00
Detroit 2,946,954.00

\$6,187,611.00

Its officers are among the best known financiers, bankers and merchants of the state. They are:

President, Samuel B. Harris, Hancock, Michigan.

Vice-President, Henry L. Bae, President, Superior National Bank, Hancock, Michigan.

Vice-President, P. H. Paine, of Calumet & Hecla Mining Company, Lake Linden, Michigan.

Vice-President, R. P. Bronson, Manager Consolidated Fuel & Lumber Co. Ishpeming, Michigan.

Vice-President, Thomas L. Hilton, of Hilton, Hart & Garrett Co., Detroit, Michigan.

Vice-President, Fred G. Eddy, Secretary, Randall Lumber & Coal Company, Flint, Michigan.

Secretary-Treasurer, Charles D. Hanchette, Hancock, Michigan.

General Attorney, Swaby L. Lawton, Hancock, Michigan.

Clyde I. Webster, Circuit Judge of Wayne County, Detroit, Michigan.

A. F. Heldkamp, President, Leatherlite Co., Detroit, Michigan.

Henry Fisher, Superintendent Calumet & Hecla Stamp Mills, Lake Linden, Michigan.

Allen F. Rees, Attorney and Counselor for Calumet & Hecla Mining Company, Houghton, Michigan.

John D. Cuddihy, President, First National Bank, Calumet, Michigan.

W. H. Faucett, Insurance and Real Estate, Calumet, Michigan.

Thomas Coughlin, Insurance and Real Estate, Hancock, Michigan.

W. H. Thielman, Vice-President of State Savings Bank, Laurium, Mich.

W. Corbin Douglass, General Insurance, Houghton, Michigan.

Edward M. Lieblein, Wholesale Grocer, Hancock, Michigan.

James Hoar, Lake Linden, Michigan.

Hugo M. Field, President of Stern & Field, Five-Store System, Hancock, Michigan.

Fred A. Aldrich, Secretary-Treasurer, Dort Motor Car Company, Flint, Michigan.

The Detroit office occupies a prominent corner on Clifford and Washington Streets; Flint—the new office building (now under construction) is located on North Saginaw Street and we have just remodeled the office building at Pontiac located at 30 South Saginaw Street.

An institution which had a wonderful growth in the last 11 years. Our assets—
June 30th, 1909, were.... \$1,731,873.00
June 30th, 1915, were.... 3,001,038.00
June 30th, 1920, were.... 6,880,449.00

A coat of shellac helps save mother's back—if applied to the linoleum once in a while.

The High Price of Sugar

makes one welcome foods which are rich in natural sweetness.

Grape-Nuts

—the ready-cooked cereal

requires no added sweetening, for it contains its own pure grain sugar, developed from wheat and barley by twenty hours' baking.

Sprinkle Grape-Nuts over ripe fruit or berries and you'll save sugar.

Development Section

Of the Cloverland Magazine

Along the northern rim of the Great Lakes Basin—across the states of Michigan, Minnesota and Wisconsin—there is a great belt of undeveloped land. A few years ago it was considered worthless—just stump land, no longer good for lumbering, and therefore useless. Today this area is recognized as the greatest frontier America has yet offered her people.

Clover is indigenous—therefore this country has been called "Cloverland"; but every other crop, native to the north-temperate zone, and every form of live stock, has been made to thrive in this new country. Today there are many settlers, many fine farms, many thriving towns, and wonderful cattle and sheep ranches. There is room, on some 30,000,000 acres, for thousands of additional men and women, some of whom will surely achieve unusual success, and perhaps fortunes.

The Magazine is convinced that the Cloverland country has more real opportunities for farmer, rancher and business man than any other section of the United States today. But these opportunities must be carefully and soundly handled.

On the following pages you will find articles relating to this great cut-over country, known as "Cloverland." They are written by men who already live in the country, and who know it. The Magazine does not assume responsibility for all of the views or expressions included in these articles, recognizing that sometimes as individual experiences though truthfully set forth, may not be applicable to every other similar situation. However, the Magazine accepts statements only from men of standing and responsibility and believes therefore, that the following pages fairly reflect the conditions and probabilities of the North Country—"Cloverland."

The Minnesota Land Clearing Special

(OFFICIAL REPORT)

THE first Minnesota Land Clearing Special has completed its itinerary as per schedule. It seems proper that a report in some detail be made to all of those who contributed toward making this an possible.

The co-operators taking part in this work were: The St. Paul Association, a Minneapolis Civic and Commerce association, the Northern Pacific Railway, the Great Northern Railway, the Minneapolis, St. Paul and Sault Ste. Marie Railway, the Minnesota and International Railway, the University Department of Agriculture, the Cleveland Tractor Company, the Dupont Powder Company, the Hercules Powder Company, and the three stump-puller companies, A. J. Kirstin Manufacturing Company, the LaPlante-Choate Company and the Martinson Manufacturing Company.

The above co-operators made the Land Clearing Special possible; but actual land clearing demonstrations could not have been carried out without the co-operation of the farmers on whose farms the demonstrations were made, and of the local business men and farmers who took an active interest in advertising the demonstrations and in seeing that everything was in readiness for them.

There are in Minnesota at least 10,000,000 acres of cut-over timber land suitable for agricultural purposes that will be as productive as a like number of acres anywhere in the state as soon as these acres are brought under cultivation. It is very conservative to state that every acre of this land that is cleared will increase in value at least \$50, and that each acre cleared will return a gross product each year worth from \$25 to \$50. When this is accomplished it will be like adding an industry to the state that will increase the annual production of the state at least \$250,000,000. Consequently, the development of Northern Minnesota is a problem in which every citizen, regardless of his occupation, must be interested.

Demonstrations were given at the following places:

Place-Date	Attendance	Approximate Area Cleared
Itasca-May 18	350	5 Acres
Delville-May 20	600	2 "
Hinckley-May 22	500	2 "
Frederick-May 24	350	2 "
Frederick-May 25	700	3 "
Grand Rapids-May 26	250	2 "
St. Louis River-May 27	350	2 "
St. Louis-May 28	250	2 "
Albany-May 29	350	6 "
Woodstock-May 31	650	3 "
St. Anthony-May 31	300	6 "
St. Anthony-May 31	400	4 "
St. Anthony-May 31	250	6 "
St. Anthony-May 31	350	4 "
St. Anthony-May 31	300	5 "

Place-Date	Attendance	Approximate Area Cleared
Pequot-June 11	500	3 Acres
Algoin-June 12	350	1 "
McGrath-June 14	300	6 "
Federal Dam-June 16	250	1 "
Swatara-June 17	400	12 "
Moose Lake-June 19	500	18 "
McGrath-June 22	300	23 "
Wahkon-June 23	400	6 "
Hillman-June 25	600	1 "
Number of demonstrations	24	
Total attendance	8,750	
Average attendance	400	
Total acreage cleared	793	

It will be noted that at some places the attendance was not large, but this was not due to lack of interest, but rather to weather conditions. The demonstrations, of course, had to be scheduled for a considerable time in advance, and as this was a very rainy season many of the demonstrations fell on days that were entirely unsuited to that sort of work. In many cases roads were impassable or nearly so, but every town was given sort of a demonstration regardless of the weather.

At Northome, where it rained all the day of the demonstration the crew worked the entire afternoon with an audience of about 150 farmers, and the following morning before the train pulled out co-operated with the local people in clearing up the fair grounds, leaving a lasting and favorable impression of the land clearing train in that community. At Swatara, the land clearing demonstration was given on the school grounds, and at Moose Lake the village park was cleared.

The Land Clearing Special was organized for demonstration, rather than speech making; however, several evening meetings were held and were generally well attended by both farmers and townspeople. The demonstrations and meetings caused considerable talk among local people about co-operation in land clearing, between townspeople and farmers, particularly by the banks making liberal offers of financial aid to settlers for land clearing work. There was likewise talk among the farmers of co-operating in the purchase and use of land clearing equipment. About fifty carloads of dynamite have been purchased in Northern Minnesota this year for land clearing work, about half of this amount being purchased co-operatively.

Everywhere a keen interest was shown in the demonstration. Wherever train schedule permitted, the crew left the cars with their equipment at 7 o'clock in the morning. Usually by 9 o'clock the equipment was set up and ready for work, and as a rule a good showing of spectators was on hand at that hour. Of course, many townspeople turned out,

and make the first Land Clearing Special possible will be interested to know that the Regents of the University have authorized the establishment of a land clearing section in the Engineering Division of the College of Agriculture. This section will have at least one man devoting his entire time to land clearing problems. We believe it is due to the co-operators to say that it is very evident now that the work is concluded, that it was unquestionably a success and has been a real contribution to the development of Minnesota.

With such a large engineering problem as that involved in the removal of the stumps from 10,000,000 acres of land in Northern Minnesota, it is evident that the application of the latest methods and equipment is a matter of prime importance. Many of the settlers in Northern Minnesota know much about land clearing, but very few of them have seen the full equipment available for that sort of work. The use of the cheaper, low grade dynamite, the use of the latest attachments of the stump pullers, the use of the home-made stump piler, were new to most of the people, and the demonstrators were quite as busy during the demonstration in answering questions as in actually removing stumps.

In addition to these experienced land clearers who attended the demonstrations, there were many hundreds of new settlers who are quite without experience in clearing land. To them the demonstration meant much. It is very probable that the greatest success of the land clearing demonstrations was in stimulating greater interest on the part of the farmers and local business men in the land clearing proposition.

The helpers which it was necessary to furnish for the co-operators in putting on the demonstrations were selected with a view to training men to do land clearing work in the future. The crews were made up as follows:

- Young man from the College of Agriculture.
- Two young men from Duluth.
- Two farm boys from Wahkon, Mille Lacs County.
- Two farm boys from Northome, Koochiching County.
- One young farmer from Pelican Rapids, Ottertail County.
- One young farmer from McGrath, Aitkin County.
- One young farmer from Hinckley, Pine County.

The experience these young men received during the six weeks work will be of much value to them and to their communities. In fact, the business men and farmers of McGrath are backing the young man who went with the train from there. He has purchased a tractor and other equipment and is going into the business as a land clearing contractor.

Those who had vision enough to see the value of the land clearing work

and make the first Land Clearing Special possible will be interested to know that the Regents of the University have authorized the establishment of a land clearing section in the Engineering Division of the College of Agriculture. This section will have at least one man devoting his entire time to land clearing problems. We believe it is due to the co-operators to say that it is very evident now that the work is concluded, that it was unquestionably a success and has been a real contribution to the development of Minnesota.

It is perfectly evident to anyone who realizes the connection between increased agricultural production in Minnesota and increased business along all lines, that the first Minnesota Land Clearing Special is merely a start and that this work must continue for many years in some form that will aid and stimulate the rapid development of the present idle acres. Inasmuch as this is a problem of interest to every legitimate business in the state, it must not be left to the efforts of the settlers alone who are trying to develop homes in Northern Minnesota but should be encouraged in every legitimate way by all the business interests of the state.

LAND DEVELOPMENT COM.,
A. D. Wilson, Chairman.
RAILROAD COMMITTEE,
Frank S. McCabe, Chairman.
Approved by Agricultural Development Sub-Division, July 28, 1920.
Signed by:
E. G. Quamme, Director-Chairman,
Theodore Sander, Jr., Secretary.

This is the first land-clearing special train for Minnesota and the success noted practically insures similar demonstrations as an annual educational event in the northern part of the state. Land-clearing specials have been annual activities of the Wisconsin College of Agriculture for several years, and the results have been highly satisfactory.

It is believed that Michigan will fall in line with this progressive movement next year, thus giving all of Greater Cloverland the benefit of these expert demonstrations, which have resulted in thousands of dollars' savings to farmers by learning the use of low grade powder, and greatly increased areas of cleared land.

It has been the experience in Wisconsin that larger crowds attend the demonstrations each year, indicating that farmers and settlers realize the value of these expert land-clearing schools and profit from what they learn.

The Garden "Peninsula"

(Continued from page 10)



These companies were the first to bring cattle to its cut-over lands, and carry on profitable and successful grazing in Cloverland.

WE offer the western grazers their choice of 75,000 acres of cut-over lands in Cloverland; 25,000 in Northern Michigan; 50,000 in Florence and Forest Counties, Wisconsin.

Several ranches were selected and taken over last year by well-known western cattle and sheep men.

Write us for particulars or come and see these lands for yourselves.

J. W. WELLS LUMBER CO.
MENOMINEE, MICH.

GIRARD LUMBER CO.

J. W. Wells, President

DUNBAR, WIS.

MENOMINEE, MICH.

an asset in soil fertility. We did see field after field of wheat and barley in the shock, of field peas and hay in windrows, of growing corn and potatoes. On the sandy loam adjoining Sac Bay and on the high tableland back of Fayette apples, cherries, and plums (including Japanese plums) were doing very well.

The market garden of Hermann Winter at Sac Bay was a remarkable illustration of the possibilities of the lake shore, with its atmosphere tempered by the warming breezes from the lake and the protecting bluffs in the background. Here were growing a greater variety of tomatoes than we had elsewhere seen—from the currant type, through the cherry, peach and plum, to the ordinary market sizes, and much else that a good garden should contain. Mr. Hermann stated that his egg plants, last season, produced fruit of nine pounds each and that he even grew marketable peanuts. This season is less favorable, but we saw sufficient to convince us of the rich possibilities of this industry.

Close by the 160-acre farm owned and managed by the three Misses Elliott is a most remarkable example of feminine pluck and achievement. It suggested very strongly the best improved farms of the southern counties of the Lower Peninsula—being not unique in this respect. Calling for especial mention is the fine field of navy beans now approaching maturity—as excellent a field of beans, all the visitors agreed, as any had seen anywhere, grown in the peninsula where bean-growing has not generally been regarded as commercially advantageous; but we were informed that in twenty successive years of bean-growing, only one crop had been lost through frost. The yield is far above the state average—as high as forty-four bushels per acre having been secured one year and the lowest yield twenty bushels per acre.

Mr. Gelsmar was especially gratified to learn that these beans were of the rust-proof variety which he had produced when in charge of the Experiment Station conducted at Chatham by the Michigan Agricultural College and which a dozen years ago, he persuaded the Elliotts to introduce on their farm. That this variety of beans has here produced true to type during all this period should be of interest to other farmers in quest of better seed. On this same farm are eighty-two head of cattle, the product of the milch cows being handled in a modern dairy building with gasoline engine and other modern equipment. It was unanimously voted that never had such a delicious quality of maple syrup been enjoyed as that which functioned as dessert at lunch, and we were surprised that the product of the two hundred maple trees on the place had been marketed at top prices as far east as New York and as far west as Los Angeles. Had fewer maples gone into the manufacture of charcoal iron a generation or two ago, we should here have a very valuable Cloverland product to sweeten and enrich Michigan agriculture.

A few miles away is the large farm of Mr. Hughes, a retired general passenger agent of the Soo Line Railroad. The commodious, citified home in a delightful rural setting, with its long view over the countryside from the enclosed veranda at the front, with all those appurtenances and conveniences that our modern life demands, has shown to two people at least how much of the real pleasure of existence can be secured far from the maddening hum of our big cities and our much-traveled ways. Mr. Hughes is particularly glad to show his flock of sheep, for which he thinks the country very well adapted, as indeed, others seem to think, evidenced by the presence of large numbers of sheep frequently encountered.

There is practically unlimited range for cattle and sheep, the main require-

ment now being that standard improved grades of cattle should be introduced. The Misses Elliott have made a beginning in this direction, and I was interested in observing on their reading table, not only *The Ladies' Home Journal*, but also *The Aberdeen-Angus Journal*, which, I was assured, was not unread.

The "Garden Peninsula" being so remote from the railroad (The Soo Line is reached at Delta Junction or Cook's), some will inquire concerning market possibilities. Most produce not locally consumed goes out by water to Escanaba. Dock facilities abound along the shore—some installed by mills, others by fishermen, and some put in by groups of farmers. Shipments go forward to Escanaba at low rates. Carload lots of cattle are driven sometimes to a shipping point on the Soo Line. The highways into the country are remarkably good and are being rapidly improved. Michigan trunk-line number 12 running between Rapid River and Manistique is the principal trunk highway for the region, passing east and west on its northern side. From thence less improved but very passable country roads diverge to Garden and the farming and fishing region to the south and east.

The territory lies within Delta County, and the Delta County Road Commission has an especially modern equipment for highway construction. We passed a narrow gauge railroad, with diminutive locomotive and train of thirty steel cars loaded with crushed dolomite in full operation on Trunk Line No. 12, with two steam rollers, a large stationary rock-crushing outfit and other up-to-date facilities for high-class road-building. These highway facilities make possible daily mail service throughout the "Garden Peninsula," although it is well off the usual lines of travel.

Primarily it is the waterway, accessible nine and sometimes ten months in the year, which serves the transportation requirements of this remote community—remote as remoteness goes today. Much of the dairy products, fruit and garden stuff, and even grain and live stock, that is not consumed locally, make their exit in this way. Little forage stuff leaves the country, being retained to the ultimate enrichment of the soil.

We should know more about the climate of the peninsula. The records of the United States Weather Bureau at Escanaba do not answer for this location, whose peninsularity and elevation lay it open to especial local influences. Steps will be taken at once to secure the establishment on the peninsula of a station with a voluntary weather observer, in order that there may be available hereafter definite official records to guide such as may have an interest in such information. A thorough-going soil classification is also desirable. While no definite figures are available, the land under cultivation is manifestly large, the product considerable, and the section is deserving of more attention than it has hitherto received.

What have I to sell on the "Garden peninsula"? Nothing. As a citizen of Michigan I am glad to see every corner of it do well and prosper. As to whether these impressions represent actual conditions, the way is open for the curious to examine for themselves. I am truly glad that the Upper Peninsula Development Bureau made it possible for me to make this cursory investigation of conditions, and that the best equipped man in the Upper Peninsula for expert advisor on such technical points as should arise—Mr. Gelsmar, of Houghton, was at my elbow and patient beyond measure with whatever sage or foolish inquiries might be forthcoming. I find that there remains a good deal about Michigan that is not generally known and that is worth finding out.

Farming vs. the Land Deal

Inflated Values Do Not Enrich the Soil nor Grow the Crops

THE good people of the east, south and west point to Iowa, where farm lands are selling from \$200 to \$600 an acre, and say: "Ah, there is a **real** farming country. There is nothing cheap about Iowa. Look at what the land is worth. Surely nothing on this continent can compare with that. Why bother about cheap lands, even if they are good, when Iowa presents such unusual opportunities," etc., etc.

What land is worth, and what it sells for are two different items. True, the state of Iowa has established a reputation as leading all other states in agricultural production. Yet, is the soil of Iowa so vastly superior to justify such unheard of inflation of values? Are agricultural areas in other sections so far inferior as to justify the ratio of one to 100 in selling price?

Iowa is splitting the difference between reputation and actual values. And her reputation possibly warrants it in some cases. But it is a fact that the home-seeker in Iowa pays 50-50 for land and reputation.

Upper Michigan is just beginning to show what it can do in an agricultural way. It is a new country, and still in its infancy as far as agricultural development is concerned. The mere fact that the great lumbering operations has created such a vast acreage of idle, cut-over lands accounts for the possibility, and necessity of low introductory prices. Land which sells for \$20 in Upper Michigan sells for \$150 in Iowa. Years from now, when Upper Michigan actually begins to realize the possibilities of its soils, climate and other advantageous features, the same lands which are selling for \$20 today will command \$150.

Think it over. For further information write

The UPPER PENINSULA DEVELOPMENT BUREAU
MARQUETTE, MICHIGAN

WE HELP YOU!

All we ask of any experienced stockman or farmer is a clean record, possessing ambition and the energy to go forward. If you have these requisites write to us and we will give you a choice location on some of our best cut-over land on terms and conditions that will enable you to make a success if you have the right kind of stuff in you.

Write to Us

Tell us about the size acreage you want, what you want to do with it, whether you now possess any stock—beef cattle, dairy cows, sheep or swine, and horses—whether you have any farm implements and tools, and give us one or two references.

We Will Do the Rest

We have thousands of acres of good, hardwood cut-over land, watered with clear streams and lakes, with an abundance of grass and clover going to waste each year. There are no commissions to pay. We own the land and make terms and arrangements with each purchaser to suit his needs, and give aid in establishing credit and banking connections. Tell us frankly what you want. All correspondence confidential.

SAWYER GOODMAN COMPANY
MARINETTE, WISCONSIN
Or
GEORGE H. HEDQUIST, Supt.,
GOODMAN LUMBER COMPANY
GOODMAN, WISCONSIN

Easy When You Know How

(Continued from page 8)

be plowed twice as easy as the first season. I will do no more plowing or blasting now until I get all the ground seeded that I intend to mow for grass.

So far I have bought no cattle of my own except those already mentioned, and will not buy any before I have plenty of good winter feed for them. Then I expect to buy Hereford, Short-horn or Black Pole heifers and raise calves to turn off in fall or winter.

Last fall I started the ball rolling here to clear more land in the country by holding a land clearing contest. I suggested the name of Rusk County Million Dollar Land Clearing Contest, and with this name we have secured much publicity and interest among the farmers. We gathered together many of the progressive business men and farmers of the county and wined and dined them and played a little jazz music for them. Then we put up a blackboard and let them advertise, the same as they do in a revival meeting. The banks gave \$100 each toward financing the contest and every one else came into line for what they could afford. The man with the chalk wanted to quit when he had \$1,200 subscribed, but I said "Keep right on, you're doing fine. If your arm aches I'll take the chalk." In another half hour we had \$4,000 with which to put the contest on its feet. Besides this the colonizing company has offered a 40-acre farm as the grand sweepstakes prize.

This contest has been a big thing in starting farmers to clear up more land and in keeping them at it. Chris, Gilbertsen, who is now working my farm on shares, is out after the big sweepstakes prize, and is well up in the race.

Since my illness of a year ago I have been unable to do the more rigorous work on the farm and so have established Mr. Gilbertsen there and I have

moved into Ladysmith, which is more to the liking of my family, who are not farmers at heart.

With the giving up of my active work on the farm, I took up the new work of editing the Farm Department of the Ladysmith News-Budget, one of our live little weeklies. I believe it is the only department of its kind in the state, and it does a lot toward bringing new settlers in and keeping them contented after they come.

It is three years now since I moved up into what was then wilderness, but things are different now. Fine graded roads run out beyond my farm and the adjoining land which is being colonized by the National Land Colonizing Company is being settled up fast. To date this company has sold over 3,000 acres since spring and I am getting neighbors on every 40-acre road frontage. All of this makes The Big Seven Live Stock Ranch I have named my farm, more valuable every day. Dozens of autos pass my door every day now, where four years ago there was no road at all. I have deeds to the 700 acres and will have 100 acres cleared by the end of this year.

BOOSTS CLOVERLAND

H. W. CARLEY, formerly of Casper, Wyo., now located at Limestone, Alger County, with 1,500 head of sheep, has recently returned from a trip "back home," in the interests of his Cloverland project. Mr. Carley declares that he had ample occasion to "put in a few" for Cloverland, and that he has interested several parties in Upper Michigan as a sheep country. Mr. Carley has resumed development of his holdings near Limestone.

The handsome profit Mr. Carley and his partner, Ed. Keen, made on their sheep in Cloverland last year, led to their purchasing a permanent ranch.

Excellent Farming and Grazing

LANDS

For Sale in Alger, Marquette, Luce
and Chippewa Counties, Michigan

Cut-over Hardwood Lands. Good Soil. Fine Water.
Accessible by Railroads and Good Highways.
Near Settled Communities.

Prices \$7.50 per acre
and up ————— Easy Terms

THE CLEVELAND-CLIFFS IRON COMPANY
Land Department
NEGAUNEE, MICH.

A Real Plan to Aid Settlers

Investigate! Read Our Plan. Investigate!



WE ELIMINATE THE FIRST FEW YEARS OF HARDSHIP.

We have set aside a fund to help you clear the land or have a portion cleared and under plow if you want it.

We provide a residence and farm buildings, horses, cows, sheep, pigs, chickens—everything needed to settle right down and go to work to make the land and live stock pay for your farm home, if you want to start this way. Or, we will sell you the unimproved land if you prefer to do all of your own clearing, build and stock your own place. All deals on easy, long-time payments.

We have three classes of land—first class, medium, and second class. You pay for the CLASS of land, and not a big price for poor land.

We give you expert advice in agriculture and live stock production free, in order to help you avoid mistakes and succeed in the shortest possible time. The more we can help you pay out the quicker our money is returned and the sooner you will have that coveted possession—a farm home of your own. This is good business for both of us.

RANCH LAND

We have thousands of acres of splendid grazing land with plenty of fresh water streams and lakes and ample sections of good farm land for raising winter feed. This land is cheap and we will make it to the advantage of the larger live stock operators to obtain one of these dependable ranges. These tracts in 1,000 and 5,000 acres solid blocks.

SEND FOR BOOKLET AND COMPLETE INFORMATION
A POSTCARD WILL BRING IT

NORTHERN MICHIGAN LAND COMPANY

MANISTIQUE, MICHIGAN

309 Caswell Block, MILWAUKEE, WISCONSIN

Nation's Potato Experts Visit Oneida County

By HENRY A. PERRY

POTATO experts of national reputation were the guests of honor at the Oneida County Potato Growers' Association picnic held at Swail's Resort in Roosevelt, Wisconsin, Aug. 20. These distinguished visitors were Prof. Tebout, of Louisiana State College of Agriculture; Dr. Stewart, president of the National Potato Growers' Association; Dr. Horton, agricultural commissioner for the American Steel and Wire Company; Prof. Howard, head of the horticultural department, University of Nebraska; Prof. Hurd, head of the Soils Department Improvement Committee, University of Chicago; Prof. J. G. Milward, of Wisconsin Agricultural College and secretary of the Wisconsin State Potato Growers' Association; Prof. L. R. Jones, plant pathologist, Wisconsin College of Agriculture; Prof. E. L. Luther, state county agent leader, who was the first county agent for Oneida county.

More than 300 farmers of the county, all of them potato growers, attended the picnic, although the weather was decidedly unfavorable for such an outdoor gathering.

The forenoon was given over to athletic sports, including a baseball game between Enterprise and Lenox, an event of more than ordinary interest, because the teams represented local talent. Enterprise won, 13 to 3.

At the noon hour big picnic baskets and lunch hampers were opened, and the guests took perhaps more enjoyment in the out door luncheon than the home folks. After lunch a speaking program was held, S. F. Weatherly, president of the Oneida County Potato Growers' Association, presiding.

In his address of welcome President Weatherly told of the progress that had been made by the association since it was organized last spring by C. P. West, Oneida county's agricultural agent, who was greeted with a big ovation.

Mr. Luther commended the county upon its excellent crop showing this year and stated that the potatoes looked better than in any other section of the state he had visited. He described Oneida county as the "banner potato growing section of the United States," and predicted a great future for that section of the country in raising potatoes.

Prof. Tebout, of Louisiana State College of Agriculture, made an earnest appeal to Oneida county to organize the potato growers into a sales organization which would be more effective in putting the excellent seed potatoes raised in the county into markets where they were in great demand.

"We think a lot of Wisconsin down south," said Prof. Tebout. "We have just brought up several train loads of our young people to see your great University at Madison, which we think is the greatest institution in the country. We are specially interested in

Wisconsin certified potato stock, since experiments in southern soil have shown that it is worth while to plant your stock and we want lots of potatoes of that kind. At the present time, however, I have to tell Louisiana farmers that there are no sales organizations to handle the marketing, and therefore, they can not get the Wisconsin certified stock they desire. Nebraska is coming to the front in this line and we can use their potatoes to good advantage, so if Wisconsin wants to keep one jump ahead it must organize so as to get your excellent certified seed on the markets where there is a great demand."

Dr. Stewart, president of the National Potato Growers' Association, spoke of the importance of selecting good seed. He complimented Oneida county upon the splendid stride made in agricultural development, and said the present potato crop of the county compared most favorably with any he

had seen in any part of the country. Dr. Horton, commissioner of agriculture for the American Steel and Wire Company, which issues one of the best crop reports for the United States twice a month, urged a system of more intensive farming among American farmers.

"The war has shown us that we must compete with other nations in the commercial struggle," he said. "We first began to do this in butter, and now American butter is being consumed in the farthest corners of the earth. It is entirely reasonable to think that before long there will be too many potatoes for domestic consumption, so we must ship to foreign parts to unload them at the highest prices. The only alternative is the establishment of factories to utilize the by-products. Germany has perfected the use of potato flour to an astonishing degree. It is an excellent flour and there is no reason why Oneida county can not produce and have a potato flour mill. It would use the poorer stock and produce an important food which would readily find a big market."

Prof. Milward, Prof. Jones, Prof. Howard and Prof. Hurd, all made short speeches in which they commended Oneida county for the progress it has made in potato growing, and urged the farmers to continue and elaborate upon this enterprise which is building up such a reputation for the county.

After the speeches about twenty automobiles took the visitors for an inspection tour of potato fields, with President Weatherly and L. Stark as pilots. The guests were strongly impressed with the fine, clean stock in all the fields visited.

Entertainment was provided for those who did not go on the inspection tour by sport events between the Boys' Camp Tan-y-lon, and the Girls' Camp Byron.



A Typical Oneida County Potato Field

MILWAUKEE STOCK YARDS

The Competitive Live Stock Market of Wisconsin

DAILY CAPACITY: 15,000 HOGS, 2,000 CATTLE, 2,000 SHEEP, 7,000 CALVES

All Classes of Live Stock in Active Competitive Demand. Chicago Market Prices Obtainable at a Considerable Saving in Transportation, Yardage and Selling Expense.

Receipts for Year 1919 (Our Banner Year) 584,555 Hogs, 107,564 Cattle, 290,586 Calves, 64,822 Sheep, 16,119 Cars

90 per cent of the Wisconsin Live Stock Shipments billed to Chicago pass through Milwaukee. *Why not patronize the Milwaukee Market?* We have the facilities and have not advanced the price for the handling of shipments, yardage or dockage. Dairy cattle and calves a specialty

Unexcelled Market for Milkers and Springers

MILWAUKEE STOCK YARDS COMPANY


Correspondence Solicited

MILWAUKEE, WISCONSIN

1886—1920

34 MONDAY, SEPTEMBER 13, 34 WE OBSERVE THE 34th ANNIVERSARY OF OUR ORGANIZATION

FROM a very small beginning we have developed our business through push and perseverance—through service that would mean to the customer the limit of market allowance. We aim always toward better service, and with every assurance of the exercise of our very best efforts we solicit old patronage and new.



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Chicago, Ill.
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250,000 Acres

unimproved Cut-over Lands

For Sale

in Tracts to suit
the purchasers.

Located in four-
teen counties in
Cloverland — the
Upper Peninsula
of Michigan.

Prices:

\$5 to \$15

per Acre

Terms are reasonable

Write for definite quotations, maps, etc.

J. M. LONGYEAR
MARQUETTE, MICHIGAN



Barley is a Dependable Crop in Northern Minnesota, Producing a Good Yield of Grain and Straw.

Field Crops in Northern Minnesota

(Continued from page 27)

and harrowed into condition for planting.

On fields free from quack grass, the practice on light sandy soil is as follows: Manure is applied on the clover meadow, usually in the spring preceding the hay crop. The clover stubble is thoroughly disked, either in the fall or in the spring. The field is plowed six or eight inches deep, usually in the spring just before planting, and harrowed into condition. With heavy soil, fall plowing is recommended.

The field is given a deep blind cultivation after planting and as the sprouts begin to appear in the rows the field is harrowed crosswise, followed later by cultivation as needed. Level cultivation is practiced where the soil is loose and open, which it

usually is here in years of normal rainfall. During wet years hilling is recommended, especially if the soil is firm and set, causing the tubers to appear above the surface.

The seed used is the very best obtainable. All diseased tubers are discarded, as well as those not true to variety and type. The seed is treated, a bushel to a sack, by immersion for an hour and a half in a corrosive sublimate solution made by dissolving four ounces of corrosive sublimate (bichloride of mercury), thirty gallons of water. The corrosive sublimate is put into the empty barrel and a pail of hot water poured over it. Enough cold water is the added to make thirty gallons.

After treating, the potatoes are
(Continued on page 42)

A DEPENDABLE RANGE

is the goal of every stockman. With a dependable range he feels sure of success and secure against future adversity. A tract of select, cut-over land in Cloverland offers stockmen this opportunity.

Tracts to Suit Needs

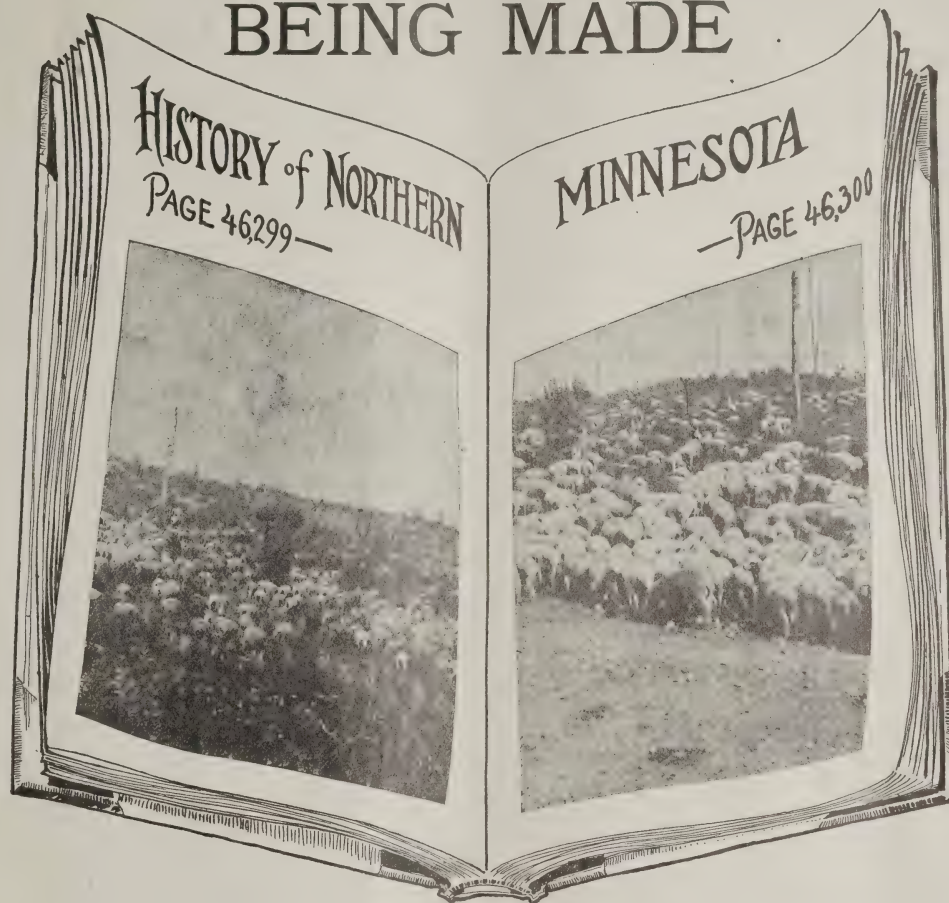
We have several choice ranges among our holdings which we will sell to practical stockmen on terms that will be to his advantage.

CONSOLIDATED LUMBER CO.

MANISTIQUE, MICHIGAN

"In the Heart of Cloverland"

AS HISTORY IS BEING MADE



Not only during war is history made. The development of the agricultural and industrial opportunities exert a far greater influence on our national life and fill many more pages of history.

History is being made rapidly in the development of sheep and cattle ranching and farming in Northern Minnesota, and as has always been true, the greatest profits are made during the period of development—not after the land prices have gotten beyond the average man's reach.

Minnesota invites you to share in this prosperity. A letter will bring you promptly more detail and facts on agriculture in Northern Minnesota.

J. S. ARNESON

Commissioner of Immigration

STATE CAPITOL

ST. PAUL, MINNESOTA

Ranches Ranges Farms

Any acreage you want
Any easy terms you want
Any way you want to buy
Any kind of land you want

The County Board of Supervisors of Iron County, Wisconsin, wants practical stockmen to take up large ranches in their county, and will aid them in locating and financing.

The County Board of Supervisors of Iron County, Wisconsin, wants experienced farmers to take up small or large acreages of the best hardwood land in the cut-over country, and develop them into paying live stock farms. The Board will help them find a good location close to local markets, on good roads and with railroad facilities.

Ranches \$10 An Acre,
Farm Lands, \$10 to \$20 An Acre,
Ranges Free for Season.

DANIEL REID

Chairman County Board of Supervisors,
HURLEY, WISCONSIN

Proof That Oneida County, Wis. Has Stood the Test

LAST year 25,000 western sheep were pastured in Oneida County. Some of these sheepmen carried their stuff through the winter with such favorable results that they will become permanent ranchers. Others are shipping to Oneida County again this year. The successes last year are the inducements to repeat this year and become permanent settlers.

For information concerning
ranges, address

COUNTY BOARD of SUPERVISORS
Rhinelander, Oneida County, Wisconsin

Field Crops in Northern Minnesota

(Continued from page 40)

poured out on the grass to dry before they are cut. The size of pieces average from two to three ounces. These are then planted from 11 to 16 inches apart in rows three feet apart. Early varieties are usually planted closer in the row than late varieties. Early varieties, planted for the summer market, of course, are planted as early in the spring as the weather and soil conditions will permit. Late varieties, as Green Mountain, King and Burbank are planted from May 15 to June 1, and early varieties are planted still later when grown for seed.

The potatoes are sprayed as soon as bugs appear. If no bugs appear, as has been the case, spraying is delayed until the buds begin to set unless there is evidence of early blight. For bugs, four pounds of lead arsenate or two pounds of paris green is added to fifty gallons of bordeaux mixture; but bordeaux mixture is used alone if there are no bugs. The potatoes are usually sprayed twice and more if necessary.

A farmer growing potatoes for seed for spring delivery should provide an outdoor cellar, preferably, built into a hillside with ample covering to insure against freezing and with ample ventilation to keep the cellar dry. Two such cellars at this station, built of stone and concrete, are giving very satisfactory service. Basement cellars are usually unsatisfactory on account of the uneven temperature.

For the most successful and economical winter feeding of sheep and swine as well as dairy and beef cattle, a succulent feed is necessary. In the corn belt ensilage from Indian corn meets this demand, and where this crop can be grown with certainty, with yields of from ten to fifteen tons per acre of green fodder, there is little hope of finding any other crop that will equal it in either economy or quality. But there are large districts in Minnesota, especially in the northeastern section, where corn can be grown only with the greatest risk from summer frosts and other adverse conditions. Happily, however, other factors combine to make this section eminently the most ideal district in the state for dairying and sheep raising. The ample rainfall and cool summer nights together with the fertile soil protected by a heavy blanket of snow through the winter months, result in the most luxuriant growth of all kinds of grasses and legumes, making pastures unsurpassed for grazing

from the time the snow goes off in the spring until the first snow in the fall, or producing an abundant hay crop of the finest quality. These same conditions are also most favorable for all kinds of root crops, a fact which is of utmost importance to the dairy and sheep husbandry of Northern Minnesota.

Roots are nature's ready-made succulent feed for winter. From earliest times roots have formed the basis of successful winter feeding of live stock in all the most important dairy districts of Northern Europe, and Canada, Denmark, Sweden, Germany, Holland, and the British Isles all depend on root crops for their succulent winter feed. A person from the corn belt of America traveling through these districts of Europe and Canada is struck by the absence of fields of In-

dian corn and the universal cultivation of root crops.

The feeding value of such roots as beets, mangels, and rutabagas, as compared with silage, is in the ratio of approximately 4 to 3. A daily feed of forty pounds of roots will take the place of about thirty pounds of corn silage; in other words, four tons of roots are equivalent to three tons of corn silage. A yield of sixteen tons of roots per acre furnishes about the same digestible nutrients in succulent form as an acre of corn yielding twelve tons of silage.

On the station lands there are more than a dozen bogs generally known in this district by the Indian name "muskeg." These muskegs vary in area from a fraction of an acre to several

acres. Two of the smaller muskegs which lie south of the station buildings have been under cultivation for several years. They have a peat layer about three feet deep. Besides an application of lime they have received the same treatment as the adjoining mineral soil. That is they have been cropped to a three-year rotation, grain, clover and timothy meadow, and a cultivated crop, receiving ten tons of manure once in a rotation. Under this management they have not produced crops of grain, potatoes, or corn equal to those produced on the adjoining mineral soil, but in some years the bogs have produced twice as much hay as the upland.

The most important problem before the farmers in Northeastern Minnesota, and one that is universal, is that

(Continued on page 47)



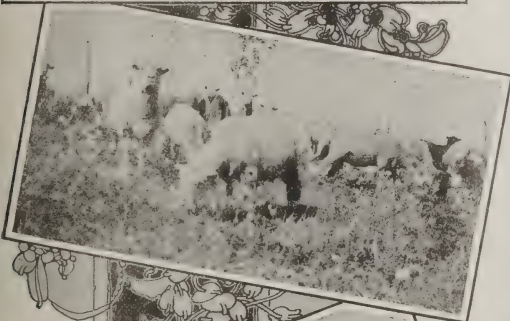
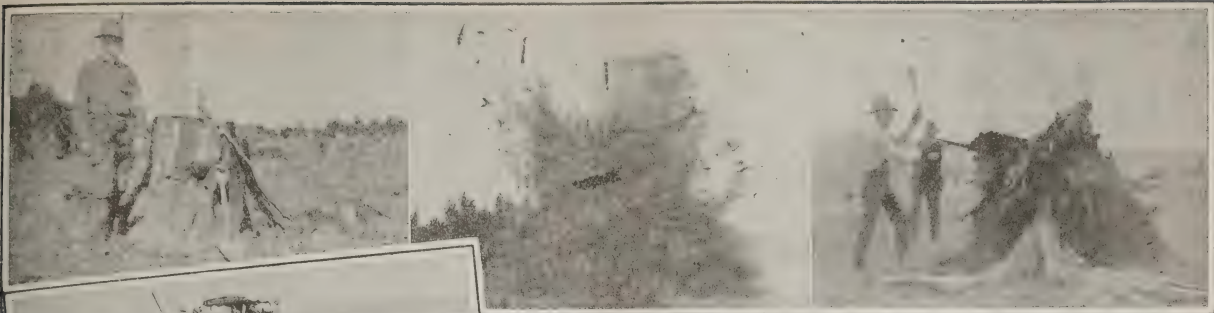
Otto H. Bergh, Junior Superintendent and Real Boss at the Station, with Some of the Corn He was So Much Interested in Growing.

VON PLATEN LUMBER COMPANY

MANUFACTURERS OF

NORTHERN HARDWOOD

IRON MOUNTAIN, MICH.



Sheep and Dynamite an Unbeatable Combination Northern Minnesota That Produces Big Results

SHEEP and dynamite handled in conjunction with one another is the way the Western sheep rancher in Northern Minnesota is setting about to get the greatest return from the lands he has taken up. The pictures tell the story.

THE PLAN OF OPERATION

From 90 to 120 days during the winter feed must be provided. The right way to provide that feed is to grow it on the ranch. The top panel illustrates the best and quickest method of getting the land in shape for cultivation. The plow follows the clearing, as illustrated in the second picture; the result is shown in the third illustration. The pulse quickened, wonderful field of that Northern Minnesota "weed"—CLOVER. Nowhere is finer or is greater yield to the acre produced.

While the land clearing and seeding has been going on, sheep have been grazing on various sections of the uncultivated land; besides taking on weight the sheep have made ready the land for easy clearing. The dynamite moves in and the sheep move on to another section. So the work progresses until sufficient land is under cultivation to produce sufficient hay, roots and other crops as desired to winter successfully. The entire job of clearing may be done in one year or a number of years to suit the individual desire.

THE RESULTS

1. The development of a permanent ranch in a dependable country.
2. Or ultimately the dividing up of large tracts that can be acquired at very low prices, at present, into smaller tracts for intense cultivation and dairy farming; the land at that time demanding good prices at a most satisfying advance.
3. The value of both cleared and uncleared lands are increased, at least, twice over the money invested.

NORTHERN MINNESOTA IS DEPENDABLE

We have several desirable tracts, and follow a very liberal policy in assisting in the development of these lands. We would be glad to tell you more about these lands—write us.

Cloquet Lumber Co. Northern Lumber Co. Johnson & Wentworth Lumber Co.
CLOQUET, MINNESOTA



**A New Farm
In a Proven
Farming District
Insures Success**

Inquire About
Ontonagon County,
Michigan

Ontonagon County, Michigan

is an agricultural region sparsely populated with practical, successful farmers, who have had the advantage of a splendid clay-loam soil as the basis for farming. There are thousands of acres of this same type of cut-over land in Ontonagon County awaiting the settler, or big rancher. Most of the timber was taken off years ago, a greater portion of the land is open, and there is an abundance of clover and grass ready for range purposes, pasture and wild hay. The county's chief industry is agriculture, so you will be settling among farmers in Ontonagon County.

No Real Estate Game

The County Board of Supervisors of Ontonagon County are inviting you in this advertising space to inquire about their county, and they will give you official service in helping you find the location you want. Detail information may be had by addressing a letter or post card to

WILLIAM KROHN
County Clerk, Ontonagon County,
ONTONAGON, MICHIGAN



Shorthorn Herd, Barn and Silo, on the Bidwell Farm, Tecumseh, Michigan

Making of a Great Industry

(Continued from page 4)

producing sections of the North foresee a very extensive development in better live stock, and a degree of prosperity that invariably accompanies the production of this class. Your readers will understand that it is inevitable that the Shorthorn will play the most important role in the future expansion and progress in your country. There is no other way that your lands can be handled so profit-

ably and so conveniently as through the use of the herds and flocks. Not only does live stock make its return of profits directly, but it adds to the producing power of the land and aids materially in the clearing up of the brushy fields and pastures.

It should be remembered that stumps do not have to be removed to make good pasture. Clover and grass grow just as well among stumps as in open field.

Fifty Counties in Upper Michigan Have Millions of Acres of Idle Lands

CLOVERLAND is now on the map as the greatest live stock and dairy district in the United States today—it is the last frontier of America. Are you going to grasp the opportunity now or wait until prices begin advancing and eventually become prohibitive for the homeseeker or careful investor?

**Inquire Now;
Prices Are Low**

The Public Domain Commission of Michigan

WILLIAM KELLY, *Chairman*, Member Board of Control, College of Mines;
JUNIUS E. BEAL, Board of Regents, University of Michigan;
THOMAS E. JOHNSON, Superintendent of Public Instruction;
COLEMAN C. VAUGHAN, Secretary of State; ORAMEL B. FULLER, Auditor General;
WILLIAM H. WALLACE, State Board of Agriculture;
GEORGE L. LUSK, Secretary Commission and Commissioner of Immigration.



Three Prize Winners on Meadow View Farm

WHAT THE

I. Stephenson Company Trustees

WELLS, MICHIGAN

Offer to Homeseekers on the Sunny Side of
Cloverland, the Upper Peninsula of Michigan

- Choice of 400,000 acres of land at prices ranging from \$20 to \$30 an acre for cut-over land.
- A climate the same as upper New York, northern South Dakota and central Minnesota—this district is 600 miles south of the much advertised wheat belt of Canada.
- A variety of soils fit for all crops grown in the north temperate zone.
- Good roads, good schools, good water and climate.
- Home markets that now are forced to depend on outside communities for much of their food.
- Railroad service that brings 10,000,000 people within a night's ride for farm products, and the equal of that afforded the farmers of Indiana, Illinois and Iowa.
- An unsurpassed fruit country, protected by 1,000 miles of shore line along Lakes Michigan and Superior—a practical insurance against frost damage. A choice of five lines of farming.

**Fruit, Dairying and Live Stock,
Truck Gardening, Grains,
Root Crops**

U. P. "Round-up"

(Continued from page 7)

ber State Board of Agriculture, on "Plans of the State Board of Agriculture for Developing the Upper Peninsula Experiment Station;" R. S. Shaw, dean of agriculture, M. A. C., and director of experiment stations, on "Experiment Station Work and its Relation to Agriculture in the Upper Peninsula;" R. J. Baldwin, director of extension work, M. A. C., on "County Agent Work as a Factor in Developing Agriculture;" Dr. Eben Mumford, state county agent leader, on "Development of Farm Bureau Organization Work;" Mrs. Dora M. Stockman, member State Board of Agriculture, on "Value of Home Demonstration Agents in the Upper Peninsula."

The exhibits by the girls' clubs were in one of the farm buildings adjacent to a large tent where the women's program was carried out. Adjoining the building was a milk booth where fifty gallons of different milk drinks were given away for the purpose of popularizing milk drinks. The booth also contained an exhibit showing the value of milk to health and its place in the diet, and printed recipes were given free distribution.

The Dickinson county club has a splendid exhibition of remodeled garments remodeled hats, required garments in girls' club work, how to know materials, and a layette.

Free instructions for old and young were given in the forenoon and afternoon in simple process of millinery and decorative stitches.

The women's program was carried out as follows: "How Can M. A. C. Best Serve the Home Keeper," by Miss Edna Smith, state leader of Home Demonstration Agents; "Home Demonstration Work in Houghton County," by Mrs. Rice, of Houghton county; "Food Study Clubs," by Mrs.

(Continued on page 47)

We Want Settlers in Gogebic Co., Mich.

This county is making settlement of the land a part of its official business, and all settlers are directed to the County Agricultural Agent, whose expert services are to be had free of charge in approving land selections, advice as to clearing, crops, cultivation, live stock growing and dairying.

The big iron mining district of Ironwood affords immediate market for all farm products at profitable prices. A mining community is a consuming community and is always willing to pay good prices for good farm produce.

There is no better opportunity anywhere in the country today to enjoy quick and satisfactory returns from the farm, especially if you have a few dairy cows and chickens.

There are thousands of acres of good farming land in Gogebic County that may be purchased at very low prices and on easy payments. There are good roads and intersecting roads which afford easy access to market, and splendid railroad facilities for shipping. There are good schools throughout the county, and churches that supply a social need not always available in more sparsely settled regions.

There are large tracts of standing timber adjacent to the cut-over land which may be purchased.

Gogebic County has all the natural resources—mining, timber, agricultural land. Could you ask for a better combination in seeking a profitable farm home?

FOR DETAIL INFORMATION WRITE TO

C. E. GUNDERSON

County Agricultural Agent,

IRONWOOD

MICHIGAN

The Keweenaw Land Association Ltd.

— OFFERS —

Cutover Lands

in Chippewa, Dickinson, Iron, Gogebic, Ontonagon and Houghton Counties in the Upper Peninsula of Michigan in tracts to suit

Clay loam, sandy clay loam, sand loam and sand soils at \$5.00 to \$15.00 per acre.

Generally well watered.

J. M. LONGYEAR, Agent, Marquette, Mich.

D. S. DEAN, Treas., 87 Milk St., Boston, Mass.

Assembled Acreages in

WISCONSIN

Are Now Ready for the Western Grazer or the Corn Belt Live Stock Farmer

RANCHES OF ANY SIZE

360,000 acres of the best grassed and clover-covered cut-over lands, all watered by streams and lakes, have been assembled in Northern Wisconsin, and will be apportioned out in solid blocks to suit the stockman.

Get your location before the Spring rush is on

Write to the

Milwaukee Association of Commerce

Athletic Club Building, MILWAUKEE, WISCONSIN

Cloverland Bargains

RATE: Seven Cents a Word

Copy for the Cloverland Bargains column must be in the office not later than the fifteenth of month preceding publication. Address all want ads to the CLOVERLAND MAGAZINE, Cloverland Bargains Dept., Menominee, Michigan

HONEY—Best Michigan clover. Ten-pound full parcel post, \$3.90; five-pound post, \$2. Cash or C. O. D. B. F. Kindig, East Lansing, Mich.

A WONDERFUL BARGAIN—680-Acre tract of choice cut-over land, clay soil, free from stones and very easily cleared, a few miles north of Ewen, Ontonagon County, Michigan. Must sell at once regardless of price. H. Lillquist, Ironwood, Michigan.

WANTED—Position as working manager with someone on large tract of land to be developed into a live stock farm. Have had an agricultural college training and life-time experience on large live stock and grain farms. Prefer to work on salary and percentage basis. Will invest some in good proposition. Best of references. Address, Box 84, care Cloverland Magazine.

WANTED—Position as farm manager or tenant on good farm. Have had considerable farm experience and can take care of dairy, cattle, horses and pigs. Have one large boy and three smaller boys—a family of five. If you want to experience in large garden work and some farming. Write at once. William Pittsley, Carter, Wisconsin.

FARMS WANTED—To sell your real estate, business or patent quickly for cash, write Northwestern Business Agency, Minneapolis, Minn.

SHEEP for Cloverland farmers. Will place ewes on shares with reliable farmers and give you an opportunity to start in the sheep business and at the same time make money. If you want to buy sheep, write us for prices. Can arrange satisfactory terms. Cheever Buckner, Pres. Cloverland Sheep Corp., 719 Ludington St., Escanaba, Mich.

IMPROVED FARM—100 acres, one-half mile of lake shore, good house, stone basement, mile from town on good road, 20 acres cleared, 40 acres fenced, quantity of valuable cedar and birch, price includes crop, 10 acres potatoes, 10 of oats. \$6,500. Fred L. Brown, Mercer, Wis.

WANT TO HEAR from party having farm for sale, give particulars and lowest price. John J. Black, 177th St., Chippewa Falls, Wis.

FRIED Wisconsin Bulletins—Soil, climate and crops. Immigration Bureau, Wis. Dept. of Agriculture, Capitol 6, Madison, Wis.

OCONTO COUNTY, WISCONSIN—The Garden Spot of the Universe. If at all interested you should at once become acquainted either by way of a visit in person or correspondence with me relative to my most unexcelled bargains, of either improved or unimproved hardwood timber farm lands. The best quality of productive clay loam soil, with excellent climate conditions produces unfailing big crops of diversified grains, alfalfa, clover, sugar beets, potatoes, fruits. Dairying very highly developed, the best of modern environments by way of church, school, cheese factory, grain and live stock markets, improved farms immediate to hand. At bargain prices thereupon. If interested better act at once for prices are destined to increase in value rapidly. Charles A. Best, Oconto, Wis.

LANDS FOR MIXED FARMING AND GRAZING—In Marquette and Alger Counties, Mich. Cut-over Hardwood Timber Lands, suitable for General or Special Farming, Stock Raising, etc. Excellent Water. Soil of Rich Sandy Loam. Exceptionally Liberal Terms. Also some Choice Tracts in Antrim and Emmet County. Write at once for our Beautiful Illustrated Booklet. Jackson & Tindie, Inc., 503 Niagara Life Bldg., Buffalo, N. Y.

MICHIGAN SNAPS—120 acres near Houghton. Small clearing. Good soil, no waste land. Only \$2,000, \$500 cash. 80 acres close to Ewen. Nice little house and barn. 20 acres cleared. Only \$1,600; \$250 down. Hardy-Ryan Abstract Co., Waukesha, Wisconsin.

TWO MICHIGAN BARGAINS—80 acres. House, barn, clearing. Near Paynesville. \$1,250; \$250 down. 80 acres near Ewen. \$1,200; \$200 cash. Both on roads. Good land, fine m. Hardy, owner, Waukesha, Wisconsin.

FOR SALE—3,500 acres in one block. Seven miles north of Oconto. A low price will be accepted for the whole tract. W. H. Grunert, Green Bay, Wis.

A FINE FARM FOR SALE—280 Acres, one mile west of Carney, Michigan, which has good schools and a creamery. 150 Acres of this land is cleared; has a good house and hay barn and small orchard, plenty of running water all the year. Uncleared land is well seeded to grass; the soil is clay loam. There is not an acre of poor land in the farm. Easy terms. Address Box 58, % Cloverland Magazine.

HAY—Write or wire us whenever in need of Clover or Timothy Hay, also Straw, in carload lots. Dafter Hay & Grain Co., Dafter, Michigan.

FOR SALE—250,000 acres of unimproved cut-over lands in tracts to suit purchaser. Prices \$5 to \$15 an acre, terms reasonable. Address J. M. Longyear, Marquette, Mich.

FOR SALE—Choice cut-over hardwood lands, especially adapted to grazing and general farming. Small or large tracts at reasonable prices, terms to suit purchaser. Northwestern Cooperage & Lumber Co., Gladstone, Mich.

FOR SALE—2,000 Acres land, in one block. Excellent soil. Well located. Price and terms attractive. Write Fred A. Roper, Menominee, Michigan.

FOR SALE—One fine 3,200 lb. team, bay and black, 6 and 7 years old; gentle experienced farm team; includes heavy farm harness in A-1 condition; price \$450. One grade cow, half Jersey, half Guernsey, 8 years old, gentle as a lamb, milks 14 qts. when fresh, freshens in July; price \$150. One 1918 Ford touring car, excellent mechanical condition, tires new, price \$350. One western saddle pony, rein broken, speedy, full of life, gentle; includes fine western saddle, price \$60. Ten tons A-1 clover hay; 35 tons clover and timothy mixed; baled; at market price. Address, W. B. Wallace, Lakewood, Wis.

FOR SALE—Yearling bucks for breeding purposes. Shropshire, white. Apply to Westleigh Farm, Lake Forest, Ill.

FOR SALE—1,000 head of breeding ewes, 2 to 5 years old. These sheep to be sold in lots to suit purchaser. Write for prices and further information. John Rachon, Kenton, Mich.

SHEEP FOR SALE—500 breeding ewes, 1 to 4 years old. Averages $\frac{5}{8}$ lbs. wool this season. Lots to suit purchaser \$10.00 per head. Teams if desired. Vail & Smith, Alvin, Wis.

FOR SALE—160 acres hardwood timber. C. W. Lightfoot, 910 Minn. Ave., Gladstone, Mich.

WAUKESHA FARM FOR SALE—56 acre highly improved farm in Waukesha Co., 14 miles from Milwaukee, 5 miles from Waukesha. Concrete road will pass farm. 10-Room brick house, hardwood floors and hot water heat, acetylene lighting system in house and barns. Basement barn 36x70, suit 12x26, all in good repair. This location suitable for general store, auto supply or hotel. Price \$14,000. Liberal terms to responsible parties. Address John Casper, R. 4, Waukesha, Wis.

80 A. half under plow, level, good road. R. F. D., phone, school on land, near cheese factory, milk route by door, nice stream, no stone, good buildings, best of soil, right price and easy terms. V. E. Conwell, Ladysmith, Wis.

HAMPSHIRE—Am offering my entire flock of breeding ewes, lambs and yearling rams. Also Champion and third prize ewes of 1918 International. Write for catalog and special prices of carload lots. Mrs. Harley R. Emmons, Elsie, Mich.

FOR SALE—We have tracts of cut-over lands of all sizes for practical stockmen who want to succeed in a permanent manner. Consolidated Lumber Co., Manistique, Mich.

FOR SALE—Upper Peninsula cut-over lands suitable for grazing or general farming, in Alger, Chippewa, Gogebic, Luce, Mackinac and Schoolcraft counties. For information write, Land Department, Charcoal Iron Company of America, Marquette, Michigan.

FOR SALE—We own 15,000 acres of cut-over lands in Dickinson, Baraga, Menominee, Iron and Gogebic counties, in the Upper Peninsula of Michigan; 20,000 acres in Forest and Florence counties, Wisconsin. Any size tract on easy terms. J. W. Wells Lumber Co., Menominee, Mich.

FOR SALE—Pure bred Guernsey bull, 2 1/2 years old; Mrs. Masher Rockingham; dam, Carlon Chosan. Price, \$200, or will exchange for breeding ewes. Address Herbert Burrows, Emetta P. O., Lake County, Minn.

FOR SALE—Several sections of best cut-over land, near railroad, on good roads, close to Superior, \$20 per acre, easy terms. Also have a few good improved farms for sale. For information, write John W. Lake, Poplar, Wis.

Door County, Cherry Land of Wisconsin

(Continued from page 5)

estimated that in all between 5,500 and 6,000 people are engaged in the cherry industry for a period of little more than one month.

The size of orchards, of course, varies a great deal. The Co-operative Orchard Company, with an unbroken tract of 600 acres has the largest orchard of sour cherries in the world. The Reynolds orchard contains 250 acres, the Sturgeon Bay Fruit Company and the Peninsula Fruit Farm have several hundred acres each. Many orchards of individuals contain five, ten or fifteen acres, enough for one man with assistance in the picking season to take care of. Not all the orchards are near Sturgeon Bay, but some are found along the entire length of the peninsula at Egg Harbor, Fish Creek, Ephraim and even as far north as Washington Island.

Door County has approximately 1,000 acres planted to apples. The chief varieties grown are the Wealthy, McMahan, Duchess, Snow or Fameuse, Northwestern Greening and Macintosh. Apple growing has been carried on for over forty years, although only within the last ten years have the commercial orchards assumed a size of any importance.

The apple orchards were planted about the same time that the cherry orchards were put on a commercial basis. The apple orchards vary in size from five to forty acres, practically every farm having a small orchard.

The 1920 crop of 10,000 barrels will be about twice the size of the 1919 crop when almost 5,000 barrels were harvested. Of the 1920 crop about 3,000 barrels will be shipped and the remainder turned into cider. The apple trees are yielding exceptionally fine this year, 15-year-old Snow-apple trees carrying around five barrels, 12-year-old Wealthy trees three barrels, 15-year-old McMahan's eight barrels.

On D. E. Bingham's orchard Dudley run about 300 bushels to the acre. Two hundred bushels for a tract of four acres of seven-year-old Macintosh trees is the crop of M. B. Goff. The apple crop is handled by the Sturgeon Bay Apple Growers' Association.

Although cherries form the big crop of Door County fruit, with apples second, strawberries, red and black raspberries and currants form a material part of the total fruit crop. The strawberry season closes about the time the cherry season opens. With a total of 10,000 cases of sixteen quarts each the 1920 strawberry crop was the largest since 1913. From a patch of one and one-eighth acres 535 cases were harvested, one picking alone yielding 165 cases. Other small fruits are equally productive.

FARM LANDS

I have thousands of acres of choice cut-over lands in Gogebic and Ontonagon Counties, Michigan.

IT WILL PAY YOU
TO SEE ME BEFORE
YOU BUY ELSE-
WHERE.

"The Landman"

Office, 216 Aurora St.,
Ironwood, Mich.

Upper Peninsula Cut-Over Lands

Suitable for Grazing or General Agricultural Purposes

FOR SALE

in Alger, Chippewa, Gogebic, Luce,
Mackinac and Schoolcraft Counties

THE Northern Peninsula of Michigan is the best Livestock and Dairy country in the United States, if not in the world. It can care for 8,000,000 sheep and 1,000,000 head of cattle.

For information write

LAND DEPARTMENT, Charcoal Iron Company of America
MARQUETTE, MICHIGAN

Field Crops in Northern Minnesota

(Continued from page 42)

land clearing. The seeding down and pasturing of stump land with sheep or cattle, for several years previous to the removal of the stumps can

be recommended wherever permissible. Such delayed clearing will be found economical on at least a portion of every farm.

TABLE 1. Variety Test of Wheat. Average Yield Per Acre From Three Plots, 1915 to 1918.

Variety	Number	1915	1916	1917	1918	4-year average
		Bu.	Bu.	Bu.	Bu.	Bu.
Minnesota (durum)	951	27.4	10.0	13.4	47.50	24.58
Minnesota (durum)		25.1	6.5	16.1	44.17	22.72
St. Clair (dfe)		28.5	4.5	17.0	38.35	22.34
St. Clair (bearded spring)	3,323	30.6	9.2	35.08	22.30	24.30
St. Clair (bearded spring)		24.6	3.2	19.8	34.70	20.58
St. Clair (dfe)	1,239	30.5	4.5	11.5	35.42	20.42
Minnesota (dfe)	163	27.3	2.7	11.8	37.12	19.73
Minnesota (dfe)		30.3	3.0	13.6	29.39	19.12
St. Clair (bluestem)		22.8	2.5	15.9	33.30	18.75
St. Clair (dfe)		20.8	3.0	10.6	38.15	18.14
St. Clair (pontard)		21.6	1.3	13.3	31.24	17.34
St. Clair (dfe)		24.2	1.5	10.6	22.49	14.72

TABLE 2. Variety Test of Wheat. Average Yield Per Acre From Three Plots, 1919.

Variety	Number	One-Year average
		Bu.
Minnesota	1,967	21.45*
Minnesota (durum)	470	5.50
Minnesota (durum)		4.35
St. Clair (bearded spring)	3,323	10.41
St. Clair (durum)	2,102	2.68
St. Clair (dfe)	1,239	1.31
St. Clair (bearded spring)	924	0.78
St. Clair (bearded spring)	1,538	0.15
St. Clair (durum)	2,103	0.13

*Summer is figured at 60 pounds per bushel after deducting 20 per cent for hulls in order to give yield comparable with wheat.
Minnesota No. 470 is a selection from Minn. No. 951.

TABLE 3. Average Yield of Oats Per Acre From Three Plots, 1915 to 1918.

Variety	Number	1915	1916	1917	1918	4-year average
		Bu.	Bu.	Bu.	Bu.	Bu.
Cherokee		106.80	61.90	35.40	103.40	76.75
Cherokee		97.90	61.20	25.10	116.77	75.24
Cherokee	505	95.60	46.60	30.03	128.13	74.59
Early Gothland	295	87.00	52.20	32.80	123.90	73.85
Early Gothland		87.50	28.10	119.07	73.32	
Early Gothland		91.70	69.90	32.75	126.93	73.07
White Russian		100.00	57.80	28.15	96.40	70.09
White Russian		84.40	56.90	28.55	109.63	69.88
White Russian		86.80	57.50	28.50	103.40	69.08
Golden Beauty		83.90	52.80	22.60	115.53	68.56
Golden Beauty		79.60	50.60	28.50	105.00	65.93
Golden Beauty		110.60	40.00	26.45		59.02*

*Three-year average.

TABLE 5. Average Yield Per Acre in Variety Tests of Winter Rye, 1919.

Variety	Yield Per Acre	
	Grain	Grain and Straw
Swedish No. 2	29.1	4.191
Vis. Pedigree	28.1	3.020
Toson	31.7	4.069
Thundane	26.2	3.610
Spring rye	10.5	2.176

TABLE 7. Yield Per Acre of Potato Varieties.

Variety	1917	1918	1919	Three-year average	U. S. grade No. 1*	Yield per acre U. S. grade No. 1*
	Bu.	Bu.	Bu.	Bu.	Per cent	Bu.
Green Mountain	373.58	374.7	414.2	354.16	92.9	329.02
Green Mountain	254.63	415.3	307.5	325.81	74.2	241.75
King	375.58	318.7	340.1	311.46	94.1	293.08
High Cobbler	300.83	318.3	398.0	305.71	89.7	274.22
Greenbank Russet	270.17	354.7	289.7	304.86	77.6	236.57
Greenbank Russet	211.83	318.0	342.8	290.87	91.8	267.22
Early Ohio	257.1	254.4	257.1	256.71	91.6	235.15
Early Ohio	299.66	250.0	209.0	252.88	87.7	221.78
Early Ohio		351.3	376.2	378.751	89.6	339.36

*Graded over Boggs grader, 1 1/2-inch mesh revolving screen.
Two-year average.

U. P. "Round-up of Cloverland Farmers

(Continued from page 45)

Brearley, of Schoolcraft county; "Helps in Home Sewing," by Miss Antonio, of Dickinson county; "Girls' Clubs in Northern Michigan," by Miss Barbara VanHeulen, state leader Girls' Clubs; Garment making demonstration, by the Girls' club of Iron county; "Mechanics of the Household-Illustrated Lecture," by Miss Sylvia Richardson, H. D. A. Gogebic county, and Miss Pratt, H. D. A., Chippewa county; "Home Millinery," by Miss Helen Arms, clothing specialist.

While every phase of the Round-up was a brilliant success, the outstanding feature was the boys' camp, the work they are doing through their

clubs, and the live stock judging contest in which they took part. A two days camp was arranged for the boys and girls at the expense of Michigan Agricultural College for the purpose of giving them instructions. The camp was under some spreading elm trees on Slapneck creek, which runs through the station farm. Eight large army tents with regular camp bunks filled with straw were provided for their accommodation.

Thirty boys drifted into camp the day before the Round-up and by the next evening 101 had been enrolled.

After the crowds had gone on the last day, the boys enjoyed "a regular boys' feed" at the camp, and put on



Take out more stumps NOW
Clear more acres this Fall

FAR more land was cleared last spring in this section than in any previous year. The crops were bigger. Farmers made more money.

Keep up the work of changing waste land into money-making land. Now, after harvest time before snowfall is a chance to make more acres ready for planting. Most farmers use



20% RED CROSS DYNAMITE

because it is easy to handle, and saves time, labor and money. Write for our Handbook of Explosives. It will tell you the newest and best ways to clear land. Buy Du Pont Explosives from your local dealer.

E. I. du Pont de Nemours & Co., Inc.

McCormick Building
Chicago, Ill.

Hartley Building
Duluth, Minn.

Choice Cut-Over Hardwood Lands

Especially adapted to grazing and general farming, located on trunk line railways twelve hours from Chicago markets. For sale, in small or large lots, at reasonable prices, terms to suit purchasers. For particulars write

The Northwestern Cooperage & Lumber Co.

GLADSTONE, MICHIGAN

a new course of stunts for the evening entertainment. They were given a big breakfast the following morning and at 9 o'clock bid farewell to the camp. Before leaving the boys gave a big vote of thanks to Superintendent McMillan and the Michigan Agricultural College for the good instructions and enjoyable entertainment, and were unanimous in their

opinion that the club members camp should be made an annual affair in connection with the annual demonstration and Round-up at the station.

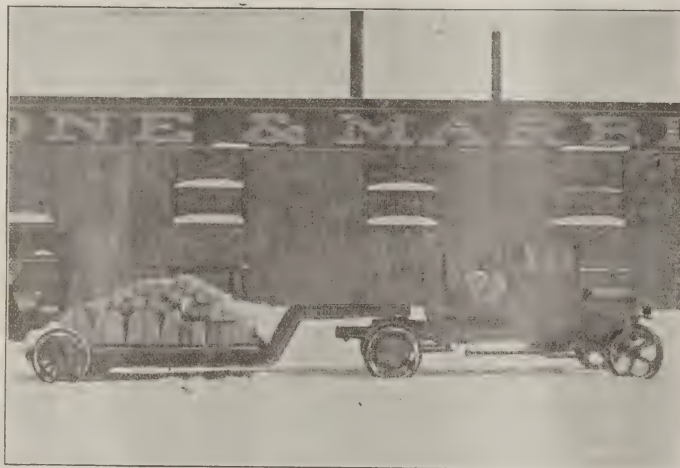
System isn't red tape. Good business men know it. Housekeeping and homemaking is a business. System is an essential in its successful operation.



General Motors Trucks

A PRODUCT OF
THE GENERAL MOTORS CORPORATION

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At Milwaukee, Wis.

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J. OGDEN ARMOUR

TO THE EDITOR, CLOVERLAND MAGAZINE:

I BELIEVE in the agricultural and live stock possibilities of "Greater Cloverland," that rich belt comprising Northern Michigan, Northern Wisconsin and Northeastern Minnesota, with its thirty million acres of available cut-over, or former timber lands.

This belief is shared with enthusiasm by my business associates. It is reflected in the recent completion and operation of Armour & Company's new packing plant at South St. Paul, representing an investment of twelve million dollars.

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"Cloverland," the well named "Last Frontier," is a place of opportunity for the hustler, the working, modern farmer; a place of vigorous climate, rich and productive soil, and all of it within a few hours by rail of the great central and northwestern markets.

Rich as have been its yields of timber and mineral, and almost exhaustless as they seem today, I hold with those who believe that the greatest wealth of this new Northwest is in its possibilities for agriculture and live stock, already developing in every county.

(Signed) J. OGDEN ARMOUR,
President of Armour & Company.

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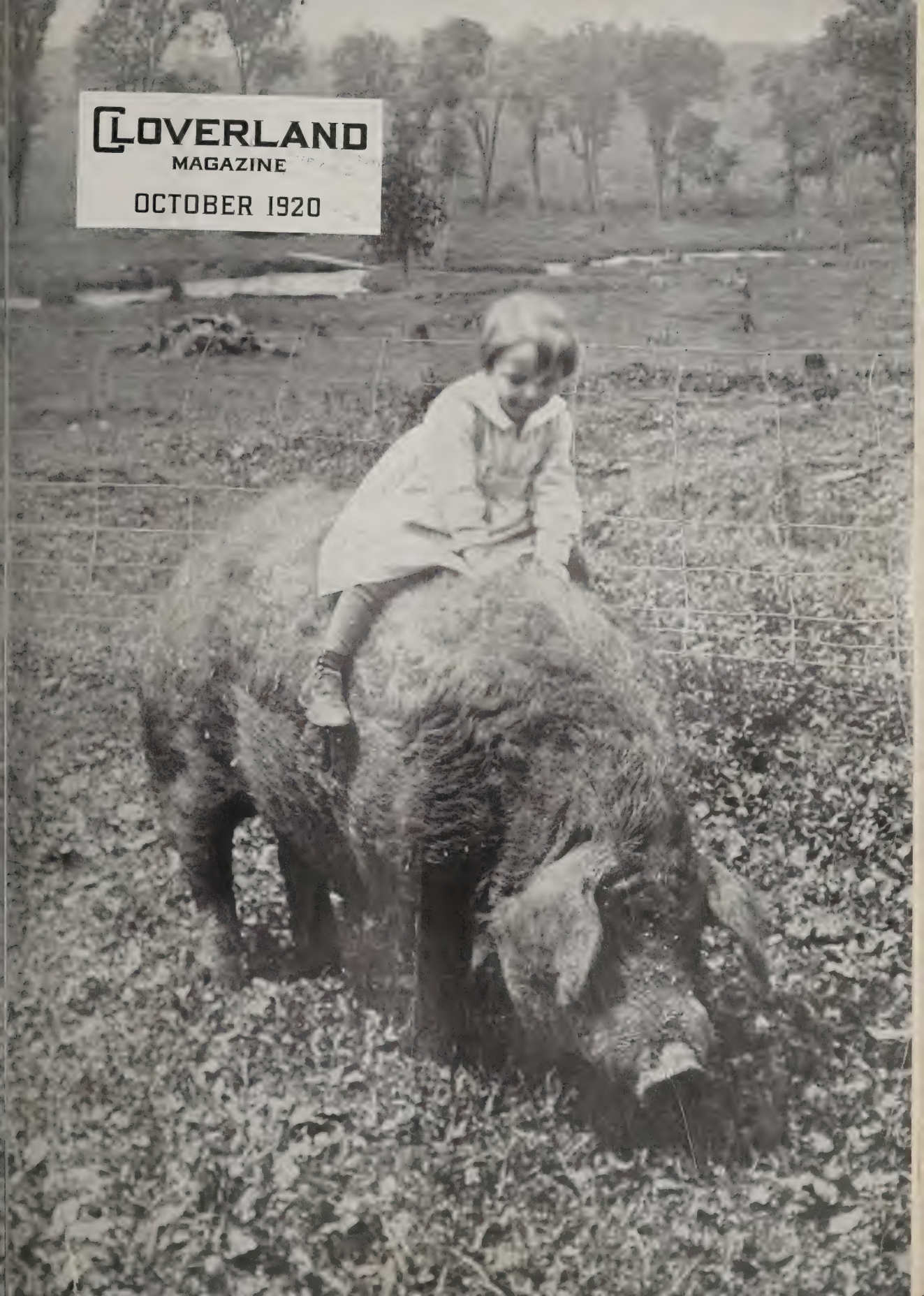
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COVERLAND
MAGAZINE

OCTOBER 1920





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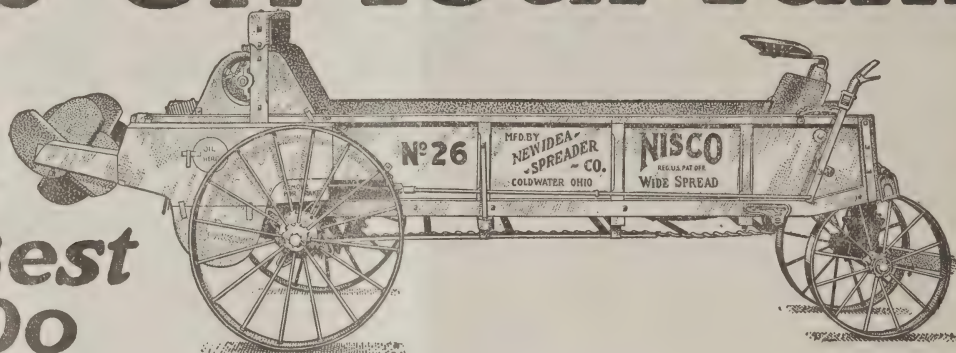
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CLOVERLAND **MAGAZINE**

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Published Every Month at Menominee, Michigan

Vol. XV No. 2

MENOMINEE, MICHIGAN, OCTOBER, 1920

\$1.00 A YEAR, 10c THE COPY

BREEDING and FEEDING DAIRY CATTLE

By C. D. GRISWOLD

President, La Crosse County Guernsey Breeders' Association



A Perfect Type of Guernsey Bull and a Herd Sire That Is Famous in Wisconsin Butcher Fat Records.

EARLIEST records of civilization show that man domesticated certain animals for which he found use. Later records show him breeding these animals with a certain ideal in mind and useful end in view. We read in the Bible how Jacob got control over his father-in-law's cattle caused nearly all of the new-born to be ringed, streaked and speckled. Cattle so marked were least desirable. Therefore Laban gave them to Jacob as his share of the profits. This was the way in which he paid him for his labor and responsibility. When the old man realized, however, that his son-in-law was getting the larger part of the increase in the herd, he changed about and took the ringed, streaked, speckled for himself, giving his son-in-law the solid colored offspring. As soon as it could be done then, Laban's herdsmen saw to it that operations were changed and then the majority of the cattle were solid colored. Here is the record of an intelligent and successful breeder of cattle. Of course, changing the colors was evidently a simple matter, for it was done in a couple or more generations, but men have been breeding cattle with an ideal in mind and end in view ever since.

Hand in hand with breeding has come feeding operations. Man learned that domesticated animals need more care than those that grow in the forests and jungles or on the plains. The art of the survival of the fittest does not operate so entirely among domesticated animals as among wild ones. Having bred an animal to his liking, man does not care to see it fail to meet his needs because of the lack of something required in the diet. Man has also learned that animals must be fed differently when they are to be put to different uses. When taking advantage of nature's laws in breeding an animal, it also pays to take advantage of them in feeding. When a man has bred a hog away from the wild boar type, he knows he will annul his success by continuing to feed it the way he razor-back grazes.

Again man finds he has a feed which he can grow in abundance and with ease. What does he do then? He breeds his animals so that they adapt themselves to the feed and make good use of it. As an example, a man taking up residence in a new country soon learns what he can grow profitably in his new location. He then se-

lects animals that do well on such feed and proceeds to breed them better. Suppose he buys a farm in Northern Wisconsin, or Northern Michigan, or Northern Minnesota. What grows best on the land? Probably clover. Does he then invest in thoroughbred race horses as breeding stock with which to stock his farm? Hardly. But why? Because trotting horses do not do well on clover, nor do they give him what he has use for as stock. They would be an unprofitable selection. There is no question as to clover being a profitable crop. The same racing stock might make money for the owner if he lived in Kentucky, but not in Northern Wisconsin because of the difference in conditions there.

If the new settler in the northern portion of these three states takes a look about him, he sees clover hay and pasture in abundance. He observes that root crops and small grains, such as barley and oats do well. Corn grows some of the way, but does not mature well. The farmer realizes that he cannot raise corn and hogs in competition

with the Iowa farmer and beat him at it, for a hog likes some grain and a great deal of corn. Clover and roots cannot form the main part of a hog's diet for he has been bred and fed differently for years and years.

Dairying recommends itself to the beginner on his northern farm because he sees that it will give him a market for what he can raise with profit. This being the case, he must select a breed that will do well on what he can grow. This breed must be rugged and acclimated. It must have been bred for production on such feed as he has at hand. It must be economical producers of products of the highest quality. It must be the proper size, not too large nor too small. It must have been bred and fed along those lines for a long time, thus reducing the number of poor producers among the offspring and making progress easier along the lines of breeding which he must follow. It will be natural, therefore, for him to choose the Guernsey breed of cattle.

Let us consider for a moment why

this breed is ideal for Cloverland. For centuries, farmers of the island of Guernsey have been breeding these cattle with the same ends in view which guide the farmer of the Northwest in his choice. The climate on the island is hardly the California variety. The cattle must be out of doors nearly all the time so they have to be sturdy and rugged. They are fed mostly on pasture and roots.

The reason for this is that the main business of the people on the island is the greenhouse business. Vegetables are raised for the London market. The cattle are pastured along the roadsides and in untilled places so as to let nothing waste. Land is very high priced and nothing can lie unused. The cattle are kept to consume all roughage and unmarketable stuff. They also furnish fertilizer for greenhouse use. They have been fed grain only during the last few years and during the war it was absolutely prohibited. The Guernsey has been bred to produce on little or no grain. She is a roughage consumer.

Exponents of larger breeds claim their cattle are great consumers of roughage—and they are—but they are even greater consumers of grain. The Guernsey can eat more roughage in proportion to her weight than the larger breeds. Indeed, in Wisconsin there are several Guernsey breeders who freshen cows in the fall and feed them all through the long winter on silage and alfalfa only. They give them no grain at all, but these cows make enough fat to enter the Advanced Registry which requires 360 pounds of butter-fat in 365 days. The economy of such production in these days of \$75 grain stands without question.

Aside from the fact that these cattle have been so fed for centuries, another reason for their economical performance lies in that fact that they are the proper size. Dairy cattle should not be too small and fine, nor rugged and sturdy. On the other hand, they should not be too large. Recently considerable has been said about ton cows, cows that weigh 2,000 pounds or over. That such cows are enormous consumers of feed no one will question. All will admit that. But is their production equally heavy? Not at all. These cows, given every advantage, fail to produce much over half their

(Continued on page 36)



A Herd of Guernseys That Convert Cloverland Grass and Clover into Butter Fat, the Big Cash Revenue of the Average Farmer.

CLOVERLAND MAGAZINE

The West Demands St. Lawrence Outlet to Sea

By HON. I. L. LENROOT

United States Senator from Wisconsin

THE West demands the St. Lawrence outlet to the sea. This is the greatest project of interior development that has ever been before the American people, and the country is to be congratulated upon the progress made. That this project will become an accomplished fact is as certain as the return of the seasons. Sectional and narrow-minded opposition may temporarily delay it, but can never defeat it.

The West demands it! Not alone because it will primarily benefit the interior of our country, but it demands it because the project is national in its scope and will benefit the entire nation. The arguments are all in its favor, and the only wonder is that it has not already been accomplished. The reasons now existing for it, however, are so compelling in their force, that it can no longer be delayed.

The history of the idea of connecting the Great Lakes with the sea is most interesting. It has been a dream of many, many years, almost since the Republic was founded, and its history is not so dissimilar to the history of the Panama Canal. It may not be generally known that the first project for connecting the Great Lakes with the sea was inaugurated by George Washington. In 1792 he obtained the passage of an act of incorporation by the Legislature of the State of New York for the construction of a waterway between the Hudson River and Lake Erie by a system of canals and slack water and lake navigation by way of the Mohawk River, Oneida Lake and River, Oswego Lake, and Lake Ontario. Of course, Washington little dreamed of the leviathans of the deep that we have in our day.

As we all know, canals have been constructed: We have today the Erie Canal, but it does not permit the passage of ocean-going vessels in the Lakes. The Welland Canal, which will soon be completed, will be sufficient for the passage of such vessels. And the people of the entire interior, from the Pacific Coast to the Allegheny mountains, are interested in securing a deep-waterway to the sea which will permit the passage of ocean-going vessels.

The project was taken up next some years ago by Senator Townsend, and he rendered a great service in bringing it to the attention of the public. The particular movement which has now resulted in positive action originated with Mr. Charles P. Craig, the energetic and efficient executive director of the Great Lakes-St. Lawrence Tidewater Association. In a speech which he made in 1918, he ably set forth the advantages of a waterway to the sea. This speech coming to my attention, I prepared and introduced in the Senate an amendment to the Rivers and Harbors Bill, requesting the International Joint Committee "To investigate what further improvement of the St. Lawrence River between Montreal and Lake Ontario is necessary to make the same navigable for ocean-going vessels, together with the estimated cost thereof, with its recommendation for co-operation by the United States with the Dominion of Canada in the improvement of said river."

This Commission had been created by the treaty of 1909 between the United States and Great Britain, one of the provisions being that the Commission, in addition to its duties specifically set out in the treaty, should make any further investigations and reports that might be requested by either nation. We were therefore fortunate in having an existing Commission at hand qualified to take up this work. The Committee of Commerce took favorable action upon the proposed amendment, and it was reported to the Senate. There, I regret to say,

it met with the determined opposition of the New York senators and also some of the New England senators. The matter was debated for the greater part of a day, it being ably supported by Senators Townsend, Kellogg, Nelson and Pomerene, and when the roll call was had, we were victorious by a vote of forty-three to eighteen. I am sure we shall do as well when the actual adoption of the project comes before the Senate.

I wish to mention this project first from a purely national standpoint, and secondly, from the standpoint of its special benefits to the interior of the continent. One of the greatest problems we have today is that of transportation, and it is monthly becoming more serious. I am informed that the volume of transportation in the United States has in six years increased forty-seven per cent, while the transportation facilities have increased less than two per cent! The primary cause of the breakdown of the roads when taken over by the government in 1917 was the railway congestion from Pittsburgh east, and especially at the port of New York. That was the neck of the bottle, and it became completely choked. That condition was only partially relieved during the war. It still exists to a large degree. The only solution is the early completion of this waterway, or the building of vast terminals at New York, and additional tracks between Chicago and New York, and the expenditure of hundreds of millions of dollars in railway equipment. The cost of this alone would much more than pay for the entire St. Lawrence project, while the revenue from the St. Lawrence route would not only pay interest upon its cost, but also return the principal within a few years.

With this project completed, railroads will be saved hundreds of millions of dollars in new expenditures without suffering any loss of net revenue to them. The power produced from the completion of the project is estimated will save twenty-five million tons of coal annually, equal to more than five hundred thousand carloads! If this relief could be had immediately, there would be no danger of the people of the Northwest freezing next winter. And besides, the coal would be saved for future use.

What folly it is to permit nearly two million horse-power of energy to go to waste each year; a power that is never exhausted; and which will continue as long as rains fall and waters flow.

From this standpoint alone this is a national project, and it is the nation's business. The completion of the St. Lawrence project will relieve railway congestion; will stimulate food production; will reduce the cost of transportation; and prove a very important feature in the reduction of the high cost of living.

Now as to the benefits to the interior of the continent: Today there is a shortage in nearly everything the world needs. From Pennsylvania to the Mississippi River great industrial centers have been built. By the time this project can be completed, this shortage, at least as far as it concerns manufactured articles, will have been made up, and if these industries are to exist and prosper, they must more and more look to an export business. They must then on come in competition with a reconstructed Europe; with a competition that is going to be very sharp in the future. In meeting it, transportation costs will be one of the most important factors, and the difference between the cost of rail transportation to New York, and deep-water transportation to the ocean, may easily be the difference between success and failure in export business so far as industries in the interior of the continent are concerned.

But there is involved not only the cheaper rate to the manufactured product for export, but the cheaper rate upon raw material not produced in the United States going into the manufactured product. Raw rubber is an important illustration. Millions of dollars will be saved annually by the deep-water route in the transportation rates on rubber for the manufacture of tires and other rubber goods. This project should reduce the cost of living to the people of the West; for foodstuffs such as coffee, tea, spices, etc., will come to the lake cities at a transportation cost of only a fraction of the present ocean rates and all-rail charge from New York. This project will also mean much to the development of the agricultural resources of the west. Upon wheat there will be a saving of at least five cents per bushel to the farmers; and upon other grains in like proportion. It will stabilize prices and afford an export market for farm products produced in the West that under existing conditions cannot enter into the export trade at all. Potatoes will furnish an illustration. The rate to New York is fifty cents per hundred pounds, which added to the ocean rate becomes prohibitive. We have all seen the time when potatoes were such a glut on the market in the West that they were scarcely worth the digging, although shortage existed in other parts of the world. Given a deep-water route, and our farmers will have the benefits of the world's markets for potatoes. What is true of this product is true of many other products as well. Every city upon the Lakes will become an ocean-port, and will do business with every part of the world.

Another great benefit, primarily to the West, but also to the entire nation, is the building up of a United States Merchant Marine in the shipyards upon the Great Lakes. With the completion of this project, we can build ocean-going ships, and our record during the war conclusively shows that they can be built cheaper in the Great Lakes yards than upon either the Atlantic or the Pacific Coasts. This is due to the fact that the transportation of steel to the yards upon the Lakes is very much cheaper than transportation to yards upon either coast. We have great steel industries situated in Lake cities. In the future, the success of the American Merchant Marine will depend upon our ability to build ships as cheaply as they can be built by other nations. With this project completed, the Great Lakes will in time to come be the center of the ship-building industry of this continent.

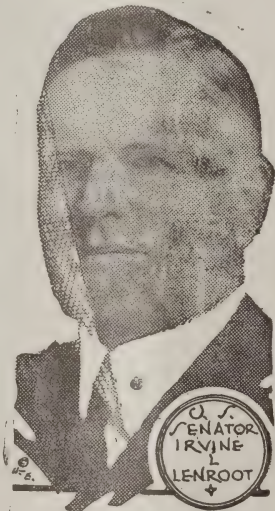
The objections made by men purporting to represent the State of New York are so puerile that they would be amusing if they did not involve so serious a matter. In the first place, they tell us that this project can never be a success and that no commerce will be carried over it. In the second place, they object to it because it will divert so much commerce from the City of New York to the St. Lawrence River as to greatly injure the City of New York. Of course, both of these statements cannot be true, and, of course, New York interests are opposing the project, not because it will be a commercial failure, but because they know it will be a commercial success.

I have been in Congress for many years, and I have never known the good people of the State of New York to organize to oppose expenditures solely upon the ground that the projects upon which the expenditures were to be made were not feasible. Many millions of dollars have been expended in the past upon various projects that were utter failures and could not be otherwise, but I never knew New York interests actively to oppose them. The fact is, that the whole opposition from New York grows out of a narrow minded provincialism unworthy of the great metropolis of America.

We are all proud of the City of New York, and we desire that it continue to prosper. New York ought to be big enough and liberal enough to neither ask nor insist that a barrier to commerce shall be continued for its special benefit. New York should realize that its prosperity really depends upon the prosperity of the continent. Eliminate the great West from the face of the earth, and New York's population will decrease fifty per cent in twelve months. It is the West upon which New York feeds!

We do not wish to be understood as making a threat or using a club, but there is an old maxim of equity that "He who comes into court must come with clean hands," and in all kindness we are applying this to the position of the City of New York, that when they come to Congress asking for either favors or justice they must themselves be willing to do justice to others.

The West demands the St. Lawrence outlet to the sea; and because its demands are so just, so necessary for the future, not alone of the West, but of the entire nation, no opposition from any source shall prevail against it, and this great project, which is more important to the prosperity of this country than the Panama Canal, shall in a few years be an accomplished fact. Upon the broad bosom of our Great Lakes, and in the harbors of our great cities, there shall fly the flags of every nation from the mastsheads of ships coming from every part of the world, but with the up-building of our merchant marine there shall always be one flag more numerous than any other, the flag of the United States of America.



CLOVERLAND MAGAZINE

Gogebic County Boy Wins National Honors in Stock Judging Contest

WILL CARL JOHNSON, a Gogebic County, Michigan, boy, have the honor of representing the United States at the world boys' live stock judging contest at the Royal Agricultural Show in London, England?

This is a question every county agent, every progressive farmer, every earnest business man in the Upper Peninsula of Michigan is trying to answer in the affirmative. And young Johnson has the support and boosting of the faculty at Michigan Agricultural College, including Dean Shaw. But the enthusiasm throughout the state for the success of this boy is nothing compared to the heaving that is being done for him in Gogebic County and by the Commercial Club of Ironwood, which is the county seat.

There is reason for all this hub-bub over Carl Johnson, for he has made a marvelous record during the past two months in judging live stock. He has astounded experts and professors in animal husbandry with his remarkable knowledge of cattle and the points that go to make up a perfect animal.

Gogebic County and the vicinity of Ironwood is about as near to the last place on earth anyone would go to find a youthful judge of live stock that could win his way through a series of contests that would give him national honors and a chance to make a record abroad, for Gogebic County is a "mining county" and Ironwood is the center of this great industry.

All about Ironwood mine shafts stick their blunt points skyward, and long cables stretching from engine rooms to the big shaft wheels in top form a fantastic aerial network of steel that pulsates and swishes back and forth at signals sent from underground a thousand feet deep. Columns of smoke are entwined with the meshes of cable and ripple at the will of the wind. Buildings of odd construction appear to be scattered haphazard about. Long tramways project from each shaft house, carrying the ore farther and farther out on great rock piles as it is hoisted from below. Switch engines hurtle to and fro, shunting ore cars here and there or making up train for the ore trucks, while steam whistles snort, and the clank and grind at the mountains of ore, working at high speed to load all the stock piles before the navigation season closes. Every night hours hundreds of men, clad in oiled coats and overalls, slipping red, crawling out of the black holes in the ground, to red ants deserting their houses, and many go back down to take their places in drift, tun-

By HENRY A. PERRY

nel and stope. Almost every hour of the day or night men with dinner pails pick their way along paths and shortcuts, for there is always somebody going on shift or returning home.

The highways are surfaced with red "mine rock," the brooks and streams run red with iron-impregnated water lifted from the depths by powerful pumps, a red dust fills the atmosphere and tinges the trees and houses.

Ironwood is a "mining camp" one of the greatest in the world. Twenty-five thousand men, women and children depend upon the mines for their existence, and the payrolls run into millions. Everybody talks mining, nearly everybody works in or about the mines, all business is done on a mining basis, the air is permeated with mining, it is mining, mining, for a radius of miles around.

And in this atmosphere, in these environments, was born and reared the greatest boy live stock judge in the state of Michigan. There are farms in Gogebic County, lots of them, and there are thousands of acres of good farm land that ought to be farmed, but mining is the thing and farms and farm lands are seldom thought of by the score of nationalities that populate the district. But, like all inhabitants of a mining center, they are boosters

for their own people and country, and a dozen languages mingle with wild gestures in boosting Carl Johnson on to success.

Mining communities always form splendid markets for farm produce, so the farmer that tills the soil where ore is dug usually finds prosperity also, for prices are high. He also learns to practice intense and scientific farming because it pays better, and for the same reason, usually keeps a better grade of cattle than the farmer where there is less incentive than a good local market affords.

There is a peculiar characteristic about a mining community that is not found in other districts. The people want the best of everything, and when something new comes along, they have it. It has been only a few years since the introduction of the county agricultural agent, so it was quite natural for Gogebic County to be one of the first counties in the state to have an agricultural agent. There was perhaps little thought of the real value of a county agent when the first one was hired. The idea was to keep abreast of the times and a little ahead of other counties. The miners stuck out their chests and the mining officials talked in a big way about "our county agent."



C. E. Gunderson

None knew or realized what a forward step had actually been taken.

About two years ago there was a vacancy in the office of county agent for Gogebic County. Mining communities also have a peculiar way about reserving the right to pick their own men for certain jobs. There was a young man living in Ironwood named Gunderson, C. E. Gunderson. He was not a graduate of an agricultural college, in fact, he was not known as an agriculturist. But somehow the county board of supervisors wanted Gunderson to take the office, and Gunderson was also the popular choice. In some opinions it didn't make any difference whether Gunderson could tell a pure bred cow from a mine mule, he was the man for the job of county agricultural agent.

Against this process of no reasoning there were others who saw in the tall young man ability, unrelenting energy, a keen knowledge of the subject of agriculture and livestock, a worker in stock, anything that might attract his attention. A young man that could be depended upon to accomplish results, and most of all, a young man peculiarly adapted to make friends with boys and girls and encourage them to take intense interest in all things that would make for manhood and womanhood. So Gunderson was hired.

The first year was a notable one in Gogebic county. He organized boys' and girls' clubs everywhere and at the end of the year Gogebic county had over 1,200 boys and girls enrolled in club work, the banner county of the state. And the scoring of their work outclassed all competitors.

Along with this organization of the (Continued on p. 44)



Carl Johnson and his \$200 registered Holstein heifer calf he won in the live stock judging contest at the Upper Peninsula Farmers' Round-up at the Chatham Experiment Station.

CLOVERLAND MAGAZINE



Glimpses of Good Roads in the Upper Peninsula of Michigan, where Highway Construction Equals That of Any Place in the World

BUILD ROADS LIKE THE ROMANS BUILT

By G. E. WENTWORTH

Superintendent, Horse Market Dept., Union Stock Yards, Chicago, Ill

THE United States need good roads. Each state will be helped by national roads, by state roads, by improvement in all its highways and all its byways. The United States were made possible by transportation facilities. But for the waterways and the railways, it is more than likely that the United States would have disintegrated from one solid whole into not less than three great nations, one lying east of the Alleghenies, one between the Alleghenies and the Rocky Mountains, and the other composed of Pacific coast states, instead of extending as it does from Maine to California and from Canada to the Gulf and to Mexico. The telegraph and telephone cemented all points together more closely than was possible by the use of rail and water communications. Like the flakes in a hay bale, the states are held together by wires and by iron bands. The construction of roads over which the latest modern conveniences in transportation (to-wit: the truck and passenger motor car) can freely move, will have the effect of compressing the states as solidly as iron can be welded together through the processes of heating and hammering.

Where these roads should be built, how they can be built, when they can be completed, are subjects for serious consideration by state and nation, by counties, village, cities and towns. They cannot all be constructed at once. Laborers are unavailable for this purpose. Some communities must forego their claims to immediate consideration. Petty jealousies must be submerged to the general good. Such roads as are built must be so built that the first road built shall not be worn out before the second one is commenced. It will not do to put patches all over, beginning nowhere and ending nowhere. Some states "point with pride" to the quality of the roads they now have. The road beds of these states are the work of nature and not the work of man. The foundations were already laid.

It is asserted that we should "build as Rome built." This idea is gaining ground since the return of our troops from abroad where our supply system found the road beds utilized by the troops of Julius Caesar, 44 B. C., most valuable assets in the conduct of the latest war. A profound impression was made upon the minds of our youth by the fact that roads could be built to last 2,000 years. Their acquaintance with roads of that description within the confines of the United States was limited. Probably the little stretch on the Island of Manhattan along Fifth Avenue which caused the downfall of Boss Tweed, is the only five miles of road in the United States, which today, might compare favorably with the Appian Way. Rome began building real roads 212 B. C. Nine centuries later, the Appian was still considered one of the sights of the civilized world. Tourists traveled hundreds of miles to see



A Great White Ribbon of Road in Cloverland, Good for Touring and Hauling

it. The road was wide enough for two carriages to pass abreast. The material was imported and the surface was made of stone so nicely cut and fitted together without the use of cement or other material than the stones, that even now, after 2,300 years, portions of it still remain with its surface practically unbroken. Road repairing cost was slight.

Probably nothing in modern times can be compared with the labor put on the Roman roads and magnitude of the task executed except our railroad road-beds. These, however, are suited for the laying of steel rails and not for the use of all kinds of vehicles which might, could, would or should carry freight along them. The Romans took no account of the obstacles of the country through which their surveyors, military leaders and engineers, often combined in one, determined to construct a road. They filled and tunneled and bridged and

cut; they ran straight or turned curves where the grade demanded it with a skill which modern engineers take note of.

Primarily, all their roads were military roads. As the boundaries of the empire advanced, the emperor who conquered and colonized new countries, continued the works of his predecessors from the last finished road, on through the new provinces. Their roads were from nine to twelve feet in width except through mountainous sections such as the Alps where they some times were reduced to the width of a single carriage with occasional widened out places that vehicles might pass one another. In some instances over the Alps, the width was no greater than five feet. Only in the Alps and the Pyrenees were the gradings more than 15 per cent and all turnings were made broad. There are practically no narrow, no dangerous turns, even on precipitous moun-

tains, in any of the roads. There is no Roman highway which was merely surfaced. The work was thorough, done. According to the nature of the soil and the difficulties to be overcome, the foundation was laid and carried up.

As late as the year 1896, an authority, a "bug" specialist on roads and all methods of intercourse, ancient and modern, committed himself to the statement that "most of the realms of the ancient Roman empire had better communications and conditions than ever afterwards or even now."

It took about 200 years of steady building during the Golden Age to entirely complete the system of highways known to the present day as the Roman roads. Each emperor, each consul, each provincial governor was responsible for more or less mileage. The road builders were the soldiers the captives of the Roman short-sword and the slaves. The Roman slaves were far from being men of low type as is shown by the confidence of their masters and the responsible positions which the freed slaves occupied in the Roman social system. The freed-men were men of class, of education, of culture, of skill. The freed-men handled literary matters, financial matters, agricultural matters and in the latter days of the Roman empire were heads of the treasury and of the Department of State. These "barbarians" just the same suffered all the inconveniences of slavery and all its hardships. Among these slaves there were men of genius and character and women of culture and refinement, according to the standards of the provinces from which they had been taken. So, many of the wonders attributed to Rome should be credited to the intelligence and to the ability of their slaves.

The boundaries of the Roman empire included more than a million square miles, a territory one-third the size of the United States. It embraced all that is now England, France, Spain, Portugal, Switzerland, Italy, most of Austria-Hungary, Roumania, Bulgaria, Serbia, Greece, Palestine, Arabia, Egypt and the Northern coast of Africa; Algiers, Morocco and Tunis. During the 200 years of the Golden Age there were practically no wars; certainly none except on the uttermost boundaries.

There were five spokes of the wheel, beginning with Rome as the center. The first along the Appian Way going to the south. From the nearest point to Sicily you crossed by ferry and thence sailed to Carthage in Africa. Carthage was hooked up with Spain by a western road running to the Straits of Gibraltar, by an eastern road to Alexandria. Alexandria was connected with Jerusalem by the isthmus of Suez which is probably the dry part of the Red Sea over which the Israelites crossed to safety many centuries before. There were roads also up the Nile to Althiopia, beyond the pyramids.



This May Not Be Just Like Roman Roads, but It Is Durable and Will Stand Heavy Traffic.

CLOVERLAND MAGAZINE

The Applan Way branched so as to make two ports, also, on the eastern coast of Italy. At each of these a ferry transported the traveler, whether for pleasure or for war, across the Adriatic into territory now claimed by Italy as its rightful heritage. From Italy Irridentia there was a pretty nearly straight drive of 500 miles which brought you up to a hotel in Constantinople (Byzantium then). It wasn't Constantinople until the days of Constantine which were 100 years and more, after the roads were built. After crossing the Straits of Bosphorus, which in those days took about an hour, there was nice, clean traveling for a distance of 600 miles to Antioch, at which point the traveler in those days met the incoming caravans from Alexandria, Persia, Arabia, India and China. In other words, there was a system of magnificently constructed roads with thousands of branching roads from Rome all around the Mediterranean, as one of the roads which left Rome headed to the north passed through Genoa and Marseilles in France, one branch of it crossing the Pyrenees ending in Cadiz.

Two of the other northern bound highways met at Milan in northern Italy and some five or six roads ran through the Alps. Three of these were real roads and the other three might be described as narrow lanes or mule paths. Every natural advantage was utilized and all the Roman roads, even the narrowest bypaths, received human attention and show it yet. No navigable waterways were ever neglected. The River Po and the Danube and all lagoons, rivers and lakes were equipped with poling barges or rowing galleys. Water routes were used from Rome to all ports on the Mediterranean.

After crossing the Alps, one of the great roads led into Vienna which was also connected up with Constantinople. Fiume, the city which the Italians and President Wilson have made famous, was connected with Rome and also with Constantinople. Strassburg, Geneva, Mainz, Cologne, Utrecht, Leyden, lay along a line, a branch of which took in Rheims and Rheims had been joined onto Lyons and Paris and Bordeaux. The great road from Rome to Britain passed through Rheims, Soissons, Amiens and Bologna, towns which have become famous to Americans within the last five years and portions of the road are well known to our army supply department.

A regular ferry, then as now, transported passengers, soldiers, equipment and produce to and from Britain. England had a network of roads extending as far north as the wall of Hadrian in Scottish territory.

The linear mileage of the Roman roads is impossible of determination, owing to the numerous branches which were run for trade or for military purposes off of all the main roads. Nineteen thousand, one hundred seventy-four miles were built in Africa by the soldiers in the year 123 A. D., alone. Distance never deterred an emperor. Had Augustus or any of his successors landed in New York, we should have had a specimen of Roman road building until his legions or those of his successors could look out of the Golden Gate and they would have laid down a foundation and put a top on it



A Picturesque Curve on One of the Fine Highways in the Upper Peninsula of Michigan—Just a Squint at the Several Hundred Miles of Good Roads in That Section.

which automobilists, bicyclists and baby carriages could have utilized to this day.

The great road from Aquileja to Constantinople was 1,128 Roman miles long and a Roman mile, doubtless all my readers will remember, was 92-100 of an English mile. The Milan to Vienna road was 308 miles; the same road on to Strassburg, 545; the road from Milan to Arles, 395. From Hadrian's wall in Scotland by way of the continental roads via Constantinople to the end of the Nile road was approximately 1,000 miles. A trip from Alexandria in Egypt all around the Mediterranean was nearly 1,900 miles. Belgrade, Sophia and Constantinople were linked together with 720 miles of road. There were 1,000 miles in Sardinia, 1,000 in Sicily. Spain had a grill work of well built roads like the radiator of a motor car.

Germany was never penetrated by the Romans which may account for many of its barbaric traits of the twentieth century.

Before leaving the subject of Roman roads, it might be well to give credit to the able work of Frielander, who left no stone unturned to secure information about the Roman life and manners of the early empire.

It is not to be understood that these roads remain in a perfect con-

dition for Europe fell under barbaric sway by the invasion of the Huns and the Goths, peoples eager to advance territorially but genuine obstructionists to and reactionaries against previous civilization.

The speed over these roads varied according to the character of the travelers and the quantity of freight hauled. There were two and four-wheeled vehicles, horse, mule and ox transportation and pedestrians. Couriers carrying state mail attained a speed of 145 American miles in twenty-four hours and there is a record of one with news which today would have traveled by wireless, 160 miles in twenty-four hours. He had to cross the Alps. On the level roads within Italy, an express rider made 141 miles in fourteen hours. Commercial travelers, pilgrims, tourists and artists were satisfied with from thirty to forty miles a day. These stopped to rest at the hotels over night and the roads were plentifully sprinkled with inns.

The posting system was much the same as that of the Overland Express in the days of our old coaching transportation and pony express from St. Joe to Sacramento. The present generation might ask: Why go to St. Joe to start on a journey? Well in '56, St. Joe was the western ter-

minial of the most western railroad line. From that point, with relays of coaches and horses and of mules, a western bound traveler bumped along American constructed (?) roads, i. e., the six horse hitch followed the wheel tracks of the ox teams and coaches which had gone west ahead of them. Streams were forded, ravines were bridged with wooden structures, deserts were waded through, mountain passes were climbed on the road-bed which the Almighty had prepared. Mankind was in too great haste to get to the end of its journey to "build as the Romans built."

The running time from St. Joe (and all horses and mules were run) was nineteen days for 1,900 miles for the coach line. Little time was lost at the posting stations. The driver of the coach merely separated his lines, tossed them to the waiting post boys and was hooked on with another six for the next station. In good weather, the distance, 1,900 miles, was frequently made in fifteen days. In winter, sleighs were used in the mountains and have been known to travel over ice and snow forty feet deep.

The pony express, so famous in stories of the wild west, made 200 to 250 miles a day, a fresh horse every ten miles.

So it would appear that the Romans had nothing on us for speed or stamina of horses. What might have been done over an Applan Way must ever remain a mystery. There is a limit to what mule or horse flesh can endure and the speed it can attain even over most perfect highways. Roads "built as the Romans built" with the same factors of safety proportioned to the speed of the fastest passenger motor car would admit of a speed of 100 miles an hour. They would stand up under heavy freight loads at fifty miles an hour. Sightseers might safely travel at forty miles an hour. The expense of construction in modern days of roads capable of sustaining this kind of traffic would be enormous. One mile of the Applan Way cost the equivalent of \$5,000 in our money before the war and the wages of the builders didn't exceed 40 cents a day. Roads constructed by the soldiers and prisoners-of-war in provinces cost nothing beyond the wages of the soldiers and the support and maintenance of the prisoners. During these days of high costs, such Ways couldn't be built probably for less than \$30,000 a mile.

The United States has approximately 350,000 miles of road-beds already built but quite inadequately used at the present day by the railways.

The Romans constructed about 1,000 miles of highway for every 10,000 square miles in the settled portions of Europe, Asia and Africa. Were the United States no more densely populated than the Roman Empire was, 350,000 miles of roads would equip us as thoroughly as was the empire. The number of miles of roads built, to as effectively serve our traffic as served theirs, must bear the same ratio to the inhabitants per square mile. "Built as the Romans built," agricultural states such as Iowa and Illinois, should be cross-checked with a good road every fourth mile east and west, north and south. As these roads

(Continued on p. 46)



The Modern Method of Constructing Good Roads in Cloverland, Equal to the Roman Methods and Much Quicker

CLOVERLAND MAGAZINE

WHAT ONE PURE BRED SIRE HAS DONE

ELEVEN years ago Edward Carlson had an ordinary working man's job in Ashland, Wisconsin. Now he is one of the most prosperous farmers in northern Wisconsin, possesses one of the finest herds of grade and pure bred Holstein cattle in the state, and there is no greater champion of the pure bred sire in the world.

One pure bred sire is responsible for his success. It was one pure bred sire that turned a menacing failure into a profitable industry. It was one pure bred sire that made the Carlson farm and his fine herd of Holsteins, lifted the owner out of the depths of despair, gave him courage, and finally turned steady losses into good profit. So why should not Edward Carlson champion the pure bred sire? Why should not he urge all farmers to tack a sign over the barn door which bears the legend that a pure bred sire is used on the farm?

Edward Carlson was an ordinary, plain working man, with a family dependent upon his daily labor for support, just like thousands and thousands of other working men. The difference between Carlson and other working men, however, was that Carlson had a vision of the possibilities that lay dormant in the cut-over lands of the north, believed in his vision and the stored treasures of nature, and also possessed the energy and determination to make good at farming if he had a chance. He was also one of those men who does not believe that "opportunity knocks at every man's door," but that it is up to the man to knock at the door of opportunity, tear down the door if necessary, and enter.

There was an 80-acre tract of land about four miles southwest of Ashland which Carlson learned was for sale. A small clearing had been made in the woods, a few acres were under cultivation, and a set of dilapidated shacks bore the honor of being called "farm buildings," and there was a herd of scrub cows on the place.

Like thousands of other working men Carlson had no money to invest in a farm or anything else, but through long years of frugal living and saving, he and his wife had managed to pay for a little home in Ashland.

Mrs. Carlson was just as anxious about a future on a farm as her husband, and they talked the matter over many nights. When the 80 acres was placed on the market the discussions about a farm became more intense. Eventually it was decided to mortgage the little home in Ashland and make the first payment on the farm.

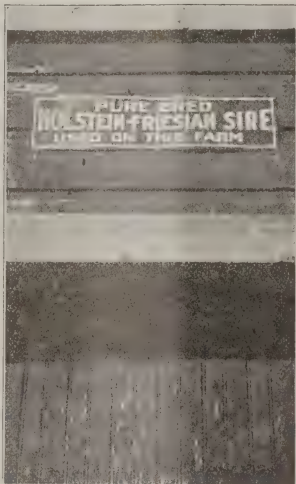
When the Carlsons moved out to the farm the children were small, none big enough to be of any assistance, but Carlson was strong and robust, full of ambition, and he courageously took hold, determined to make it go. He milked his scrub cows every morning long before daylight and was delivering milk in Ashland by sun-up,

seven days a week. When the milk was delivered he returned to the farm, shouldered an ax or grub hoe and did some clearing, or cultivated the small acreage that had been brought under the plow. The scrub herd was milked in the evening after dark for no daylight could be spared to do anything that could be done by light of lantern. No matter what the weather, rain or shine, 90 degrees in the shade or 40 below zero, the daily routine was carried out, and a big day's work was done between times on this 80-acre farm.

At the end of the first year Carlson balanced books, for he kept books on his receipts and expenditures, and to his astonishment found he was poorer than when he started in, even when he had nothing for his sixteen hours of labor each day. The dairy was not paying its own way!

With losses instead of profits the

By HENRY A. PERRY



The Sign Over Carlson's Barn Door

milk, he was confronted with loss of home in the city and the country both. Had he made a disastrous mistake in mortgaging his home and investing the savings it represented in a small clearing and herd of scrub cows?

Many men would have been disheartened and given up, sought a job in the city again or in some lumber camp, and started all over again to save for a home providing ambition and spirit had not been crushed by reverses. Many women would have taken solace in tears and sanctioned giving up. But Mr. and Mrs. Carlson were not of that type. They talked it over and over, trying to find some way out instead of giving

up and forfeiting everything. "We can never make it with those scrub cows," Carlson told his wife, as he scanned the figures of the year's net returns until his eyes grew dim. "If we had better cows we could make

There was one asset Carlson possessed which he did not realize, at the time, at least. When he started farming he began by reading farm literature, agricultural bulletins when he could obtain them, observed the methods of other farmers who had been successful and unconsciously analyzed the reasons for success and failure on the farm. At the end of one year he had equipped himself mentally for successful farming without knowing it, and mental equipment is just as necessary as physical prowess and endurance.

He had read about the production of good grade and pure bred cows, how it cost no more to keep a good cow than a poor one, and that the offspring of a scrub cow and a pure bred sire inherited half the productive ability of the pure bred. Carlson figured that if he had a pure bred sire all his heifer calves would give twice as much milk as their mothers, a 100 per cent increase in milk production. Then he figured some more, and the figures showed that if he could obtain 100 per cent more milk from the same number of cows he was keeping, and they cost no more to feed or keep, and the labor was the same, he could make the farm go. The balance showed on the right side of the ledger. So Carlson convinced himself and his wife that if they could raise money to purchase a pure bred bull their troubles would be over, although there would be years of hard work ahead and success would require careful management.

"When I came to this conclusion," said Carlson one day last August as he stood with folded arms and proudly surveyed the broad expanse of clover before him and a splendid herd of black and white cows slowly picking their way across the field, "I seemed no better off than before, for I had no money, and nothing upon which to raise money. I didn't know I had a friend on earth—at least I didn't at the time—but I found out later that I did have a friend, a very good friend, too. He was Mr. Cates, in Ashland.

"I was determined to raise the money to buy a pure bred bull somehow. I heard of a Holstein bull that could be purchased for \$175. That was a lot of money eleven years ago. It was a big sum to borrow, when a man had nothing to put up for security. I went to Ashland and told Mr. Cates I couldn't make it go with those scrub cows, but if I had a pure bred bull I could succeed. I explained everything to him and when I had finished he said:

"Go down to the bank and ask them if my name is good for \$175." "I went to the bank and got the money. And I lost no time in getting that bull out on my farm."

Breeding cattle is a slow process, it takes several years to obtain definite results, but it is sure.

The next two or three years were lean years for the Carlsons. The scrub cows were pampered and petted

(Continued on page 42)

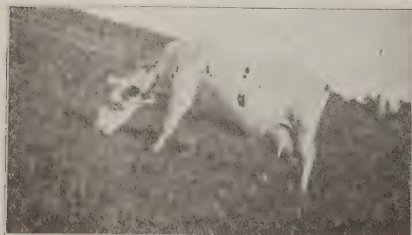


Edward Carlson's Barn and Silo

first year Carlson realized he could never meet the next payment on the farm, or ever pay for it. And there was the mortgage on the little home in Ashland. Foreclosure stared him in the face on the farm and when he passed his home in Ashland delivering

it go."

But how could a man with a mortgage on all the real estate he had, payments coming due on the farm and no money to meet them, a loss on his first year venture instead of profit, obtain money to buy better cows?



The Progress of Carlson's Dairy Herd—The first picture is that of the first cow, the product of a scrub cow and pure bred sire. The second is the offspring of the first cow and a pure bred sire. The third is a pure bred, grand champion and winner of three blue ribbons at the Ashland county fair.

CLOVERLAND MAGAZINE

The CHAMPION COUNTY of WISCONSIN

By ROBERT AMUNDSON
County Agricultural Agent, Oconto County, Wis.

OCONTO County, Wisconsin, has the distinction of holding the sweepstakes prize at the Wisconsin State Fair, and the first prize at the Wisconsin Potato Show. No other county in the state has held these two highest honors at the same time. The Oconto County potato exhibit at the State Potato Show last winter won first prize, and the county exhibit at the State Fair a month ago won by a high rating over all competitors.

Oconto County came out of the contest at the State Fair with an perfect scores—an unusual record. Several leading scores also were recorded, although they were not perfect.

The wheat score was perfect and in addition to this record Herman Hertwig, of Gillett, won sweepstakes prize on his individual exhibit of wheat.

In buckwheat, clover seed, grass in sheaf, peas, beans, clover in sheaf, forage plant, field corn and popcorn Oconto County's score was perfect. It is interesting to note that it was once thought that corn would not ripen in a northern county like Oconto.

In potatoes our score was not perfect, but it was higher than that made by any other county in the state. Of a possible 150 points, Oconto made 145. The closest competitor was Shawano county with 142. Most counties of the state dropped to or below the 100 mark. Polk county, winner of second banner, registered 130 points in potatoes.

In taste, design, and arrangement of booth Polk county ranked first, but Oconto county led by one of the widest of margins because every one of our exhibits was complete and first class. Our booth was very tastily arranged, however. It was made up and decorated to represent a harvest scene—typical Oconto county harvest scene, one might say.

The Oconto county exhibit was representative of the entire county. Samples for the different exhibits were collected from more than fifty Oconto county farms distributed evenly over the entire agricultural portion of the county.

To the farmers who were able to grow such exhibits much credit is due.

Some of the northern counties were somewhat indignant over the early dates of the State Fair this year and all with good reason, because in most of the northern counties it is impossible to find products that are matured early enough to be ready for exhibit by Aug. 25, which was necessary this year. The fact that Oconto county was able to make a successful show this year, only goes to substantiate her claim of being the "northern county with the southern climate." While other northern counties were hard hit by the early dates, Oconto county suffered less and was in a position to compete with the exhibits from Southern Wisconsin.

we are satisfied with being able to be sure of a good catch and a good crop every year on our well cared for fields. It runs out in time, but our farmers don't as a rule expect perpetual production from merely scattering the seed about. A rotation of crops is practiced, and it was from clover fields where potatoes and corn, with some commercial fertilizers, had been grown, that the clover samples for the state exhibit were picked, and they scored perfect.

It takes more than land and climate to make a county, however. It takes intelligent and public spirited people to make good communities. An Irishman is apt to forget the fundamentals of agriculture in his enthusiasm over local politics, and a Norwegian would sooner chew snuff and fish than milk cows. A German is apt to forget that the community is part of his premises. He wants a convenient home, but cares little about the appearance of the school house, or the community center. Take them all together, it makes a good substantial congregation—a good balanced ration. A great deal of credit is due to the farmers of Oconto County who have been persistent exhibitors at the state and county shows.

The influence of a great number of small community fairs has helped wonderfully in developing better methods and especially better seeds in Oconto county. Almost every community has some expert along some line in it, and a judge in our competition exhibits has to have a whole-some reason for all of his awards.

The Oconto county farmers have been making exhibits at the state shows and the County Board has backed them with their money. No large sums are spent as is the case in some counties. They have been farmers' exhibits, not commercial propositions.

The assertion is often made that products exhibited is not a fair representation of what is grown—that it depends upon the way the material is selected and exhibited. To some extent that is true, but "you can't get blood out of a turnip." Nor can you make an exhibit without good fields to select from. To me, the quality of exhibits whether it be in a little community fair or at a state show, is an unmistakable evidence of the character of the country and its people. Whether this is true or not, the most useless remark that can be made about an exhibit or a fair is that "I have better stuff than this at home." Nine times out of ten it is not true and if it is, what credit is that to the fair? To the man who has the ambition to raise quality products, and enough pride in his community to take the pains to make a good exhibit, is due all the credit that he may get out of his winnings.



Reprinted by Courtesy of The Milwaukee Journal.

County Agent Robert Amundson Receiving the Silver Cup for Oconto County, Which Won First Prize at the Wisconsin State Fair with 145 Display. Oconto County Also Holds the Potato State Championship.

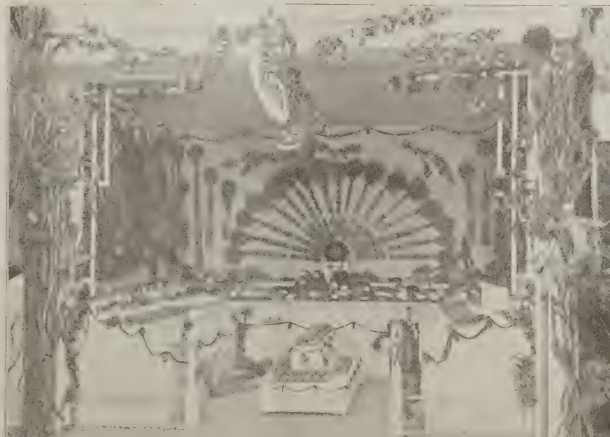
By the accompanying map, it is evident that parts of Oconto county compares with Southern Wisconsin in the length of the growing season. Oconto county with its 140 to 150 days of growing weather, can produce corn and get it ripe.

The grain, too, does very well since it is not subject to the draughts and intense heat which visits Southern Wisconsin so often.

And potatoes—well, they can't be

beat—and if you don't believe it, visit any of the many leading stations in the county during the fall and see the smooth, firm and clean stock that goes on the market. We can back up the claim for quality potatoes by the fact that Oconto county won first place at the State Potato Show in competition with seventeen potato growing counties last year.

Now we are in "Cloverland" but our clover doesn't "grow wild," but



The Oconto County Booth Which Won First Prize at the Wisconsin State Fair

CLOVERLAND MAGAZINE

How Groesbeck Won the Farmer Vote

ANALYZING the rural vote is a very interesting study, and very often reveals some astounding facts. Then an analysis of the facts reveals another fact—that farmers and farm women carefully analyze the candidates before they vote and vote for that candidate whom they believe will give the farmer the most careful consideration in the administration of his official duties.

Along these lines of reasoning it very often happens that the rural vote goes for a city man, while a farmer-candidate actually loses the "farmer vote." The logic of this apparently illogical voting is sound when viewed from the standpoint of the farmer.

It frequently happens that a candidate for public office who has spent his career in the city, originally came from the farm and naturally retains a soft spot in his heart for the farmer and farming. He is also likely to be even more considerate of the farmer than a practical farmer would be in public office, for that old adage, "the hardest task master is the self-made man," holds true to an astonishing degree. Then there is a psychological phrase of public office holding that does not escape the farmer.

The farmer may reason it out that a city man not being familiar with farm problems is more apt to give an attentive ear to their requests than an actual farmer, because he wants to know all about them and will consider all he learns with intense earnestness and seriousness. And if

that officer happens to have been a country boy, so much the better.

On the other hand, the farmer may be inclined to think that the farmer-candidate will become too much absorbed in the problems of the city man, for the same psychological reason that the city man takes unusual interest in the farmer and his problems.

However all this may be, the results of the recent primary election in Michigan indicate that the foregoing mental processes dominated the rural vote of the state, for Alex J. Groesbeck, a city man who had been a farmer boy, was nominated for governor on the Republican ticket by the farmers, who picked him from a field of nine candidates that included three men actually engaged in farming and acknowledged to be practical farmers.

Of course Mr. Groesbeck was well known throughout the state, as he has been attorney general for the



Hon. A. J. Groesbeck

no doubt that the minority of the farmers who supported the farmer-candidates will vote for Groesbeck who actually turned out to be the choice of a big plurality of farmers.

Mr. Groesbeck was born in Warren township, Macombe county, Michigan, Nov. 7, 1873. He was a farmer boy

state of Michigan for two consecutive terms, and during this time had many opportunities to show by his conduct in public office that he has a mighty warm spot in his heart for the farmer and gives farm problems most generous consideration.

The farmers of the state did not distrust the farmer-candidates, did not lack confidence in them, but evidently considered they could get more from Groesbeck in the governor's chair than from one of their own industrial kind. They voted for Groesbeck, anyway, and they will vote for him in the November election because they nominated him. And there is

but went to work in a sawmill at the age of 13, and continued to cut slabs, rustle in logs, carry out lumber, run the edger, ride the carriage, and turn his hand to anything about the mill until he was 17 years old. In those days sawmills were different, and boy or man made himself generally useful about the mill.

Through hard work and carefully devised systems young Groesbeck managed to gain a common school education at Mount Clemens and Wallace, Ontario, where he lived with his parents two years, moving across the line with them.

At the age of 17 young Groesbeck entered the law offices of Stevens & Merriam, at Port Huron, to study law. He so advanced in his studies that when he entered the law department of the University of Michigan in 1892, he was able to graduate with honors in July, 1893. He then "burnt out his shingle" in Detroit and has practiced law in that city ever since, with the exception of the time he has served as attorney general of Michigan.

Mr. Groesbeck was elected attorney general Nov. 7, 1916, a grand birthday present, and was re-elected Nov. 5, 1918, by a plurality of 125,634 votes. He was nominated for governor on the Republican ticket Aug. 31, 1920, by a large plurality in a field of nine candidates. Wayne county gave him a good majority, but it was the "up state" vote of the farmers which kept him running neck and neck with his closest competitors that made his nomination possible, so the farmer really nominated him.

The Tachina Fly, a Parasite on Potato Beetles

By LEO M. GEISMAR, County Agricultural Agent, Houghton County, Mich.

THIS beneficial insect which seems to appear in varying numbers and at irregular intervals, was first found by the writer during the summer of 1900, while superintendent of the Upper Peninsula Experiment Station. Its description and enlarged illustration by Prof. R. H. Pettit, entomologist of the Michigan Experiment Station, will be found in Bulletin No. 186 (First report of the Upper Peninsula station for the year 1900), and also in the annual report of the Michigan Board of Agriculture for the year 1901, Page 189-191.

This insect, as stated in the bulletin, was found as early as 1869 by Dr. Riley who described it as a parasite on potato-beetles in his first report, under the name of "Lydeella doryphorae." (Riley's first report insects of Missouri, page 111, 1869).

The insect is a fly which somewhat resembles a housefly, except that the back of the abdomen has silvery spots on it and that the face is silvery white. In size it is very little larger than the housefly and the sound of its hum while flying about is sharper and louder, especially while busy searching for potato-beetles. This fly lays its eggs on the bodies of nearly full developed potato-beetle larvae as well as on the adults. The eggs laid on the larvae hatch out and the resulting small grubs bore into the hosts, feeding on the living flesh and the juices of the bodies, but avoiding the vital parts. After the maggot has become full grown in its living hosts, and after the larvae of the beetle has descended into the ground to pupate, the maggot changes to a puparium, corresponding to the cocoon stage of some insects. From this puparium issues another fly similar to the one which originally laid the egg. This goes on a number of times in a season, each

generation of the flies destroying a number of potato-bug larvae.

During the summer of 1900 there were localities in Alger County in which the Upper Peninsula Experiment Station is located, where scarcely any potato-beetles were seen, while in the vicinity of the Experiment Station the beetles were quite numerous and practically everyone, as well as some of the larger larvae, was covered with from one to as many as eight or even more eggs of what appeared to be a parasite. This drew the attention of the writer who soon thereafter was attracted by the peculiar hum and queer antics of several flies while in the act of depositing their eggs on the potato-beetles. The parasite first flies, then walks around the potato-beetle several times, tapping the beetle on the head from time to time until this and the strident tones of the parasite's hum induce the beetle to remain in an apparently dormant condition while the egg is being laid on its back. If the same parasite lays more than one egg upon the beetle, the tapping and humming performance is repeated before each egg is laid. The fly lays its eggs while standing alongside or in front of the beetle. Being lower in stature, it succeeds in dropping its eggs on top of the beetles, by rearing itself part-

ly on its hind legs and after extending its visipositor in front of its body to above its head, it curves it downward and forward above the beetle and drops one egg at a time.

Potato-beetles were rather scarce in the vicinity of the Experiment Station during the following season of 1901, although no flies nor their eggs could be found. Nor have any been seen or heard from since then, although the writer has carefully watched out for them each year and from time to time, requested farmers in several localities and counties to report to him the presence of the fly or of its work, if found in their neighborhood.

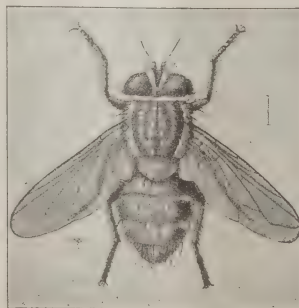
During the present season there were localities in Houghton County where potato-beetles were very scarce and others in which they were quite abundant. As above related, this same condition prevailed in Alger County during the season

of 1900, and this led to the belief that the parasite might be at work again in parts of Houghton County. After a search of about two weeks, evidence of the parasite was found in the vicinity of Dodgeville, where potato-beetles were very numerous and practically every beetle as well as the nearly full grown larvae were found to be covered with from one to five or more eggs of the parasite. In either direction from this

locality, evidence of the parasite disappeared gradually until in potato fields five miles away the eggs of the parasite were found upon less than one beetle or larvae out of every hundred.

The foregoing observations indicate that this beneficial fly is at work in large numbers in restricted areas only, but within an extensive territory and in several states. They also indicate that the fly either migrates from year to year to other localities or else has other hosts upon which it prefers to rear its young from time to time. That the flies cannot increase to any great extent is due to the poisoning of the potato beetles, a practice which has become quite general, for the poisoned beetles dry up rapidly and this leaves the young maggots which may hatch out of the fly's eggs without a living host and consequently without food.

Prof. R. H. Pettit thinks that the fly is the same which works on two rapidly disappearing species of cut-worms and that it therefore may have more than one host, for in Bulletin No. 186 he states: "An attempt was made to introduce the flies here, in order to get them to work on our potato-beetles, but as no fresh flies emerged, it was impossible. A little later in the season four flies, which the writer is unable to distinguish from the potato-beetle parasite, were bred from cut-worms. The cut-worms were the last two of a large number of rapidly disappearing depredators in a field of oats and peas. They cut the oat stems into sections several inches long and also cut the pea vines. The larvae were brought in on Aug. 1 and the flies emerged on Aug. 8. This would seem to indicate that the parasite in question has more than one host."



The Tachina Fly, Greatly Enlarged

CLOVERLAND MAGAZINE

Why Breed Draft Horses for Farm Purposes?

By ELLIS McFARLAND, Secretary, Percheron Society of America

WHEN questioned as to the wisdom of breeding draft horses, we can answer with confidence that it is the farmer's opportunity, as much as raising corn, oats, cattle, horses or any other product of the farm. Each farmer should raise enough horses for his own use, and every one of them should be a drafter.

First of all, the right kind of a drafter comes more nearly fitting into every job on the farm than any other sort of a horse. The bulk of farm work requires an abundance of weight in the collar and a good walking gait. Of course, many farmers get along with light horses, after a fashion, but such men do not realize how much more they could accomplish on their land by working draft horses. It is true, also, that a farmer could use three small horses and a single bottom 14 inch walking plow, but he could not get in much of a crop that way. Times have changed. Man labor is so scarce now that every farmer must use every means available to increase the amount of work done per man employed.

One man can just as well drive five light horses to a two bottom 14-inch walking plow and turn over a strip of dirt 16 inches wide every time he goes across the field, and back, as to do one-half that much. Instead of doing the work that one man would do twenty or thirty years ago, he does the work of two.

It makes a lot of difference in driving across a field whether you have the narrow teeth set up straight or turned dantwise. If one uses a 1200 pound horse, he must necessarily have a small harrow and he must also set the teeth so that his horses can pull it. One can drive a disc across the field, if it is set straight, and almost any kind of a team of horses can pull it, but when it comes to setting the blades at an angle, so that they will cut deeply, then it takes weight in the collar. One man can easily drive six big horses on an 18 knife disc, and occasionally he sees a man driving one team and leading another behind. It takes a very careful driver, however, to handle two such outfits. A farmer can put in as much of a crop in one week, using large implements, and a sufficient number of big horses to pull his machinery, as he would in two or three weeks using the same number of men and small 1200-pound horses. Some farmers use even smaller than 1200-pound horses, and they do not realize under what a great handicap they are working. It is just the same as trying to saw stove wood with a one-man saw, as compared to using a steam saw.

Farmers should realize, however,

that there is one kind of a draft horse that does not make a suitable farm horse. The black headed, poorly gaited, thick throated, loose jointed drafter is not for the farm or any place else. He cannot stand the heat, because he is so constructed in the throat that he cannot breathe easily. The fact that he has a bad head makes it necessary for the driver to furnish all of the brains. A horse with a poor gait cannot travel with ease, and therefore he soon tires out. The loose jointed sort soon becomes unsound and that, of course, means, for the most part, unsaleable.

Farmers should ever keep in mind that the right sort of a Percheron horse is the ideal type of a farm horse. The Percheron is not the largest breed of draft horses, but they are built right for active service. They are handy on their feet. They are cleanlimbed, requiring no extra care to keep their legs free from disease. They have a hard-wearing foot, like a mule. Percheron horses mature early and are easy keepers. Their disposition has no equal. Their heads and necks set up on their bodies in such a way that



Notice How These Two Heavy Draft Horses Are Crowding the Three-mule Team. They Are Doing the Work of Three Mules, Make Better Time, and the Cost of Feed and Harness Is One-third Less.

Right now there is a great upheaval in this country in respect to horse affairs, and that is why that right now is the most opportune time farmers have had in the last twenty years for the production of good draft horses. Practically no grade colts have been raised during the last five years. The

at a reasonable cost, much more cheaply than he can buy them. Of course, if one grows a horse on high-priced grains alone, he can soon have an expensive animal. The thing for every farmer to do is to take good care of his straw, corn fodder and hay, not letting any of these roughages go to waste, as so many people do. It takes a very small amount of grain to grow a horse until he is old enough to work, if he has all of the rough feeds and grass he wants to eat.

The farmer who finds that he will need more horses to work next spring, would better buy them this fall. There is every indication now that big work animals will cost at least 25 per cent more by work time next spring. Then, too, one has a better choice now of the horses that are for sale than he will have next March. It is true that it costs something to winter a horse, but by using an abundance of roughages, money will be saved by buying big work horses this fall.

No one need stop now to debate as to whether or not it will be profitable to raise draft horses. At one of the large shipping depots in St. Paul, a few days ago, there were 46 horse-drawn vehicles loading at one time, and only four trucks. The demand for draft geldings has held up strong, all summer, despite hard money conditions. Had the financial affairs of our country permitted building to be resumed, the demand for drafters during the summer would have been a great deal stronger than it was.

Twenty geldings went from the Chicago market last spring to Maine, for a price of nearly \$10,000, F. O. B. Chicago. Even higher prices than that are expected by next spring. The reason is that big draft geldings are extremely scarce and just as soon as money can be borrowed again as in normal times, there will not be nearly enough of such horses to supply the demand. Then farmers will find that users will pay more for these horses than ever before and the men on the land will have to put up with any kind of a horse they can find, regardless of whether he is best suited for their work or not.

It is absolutely sound advice to give to farmers everywhere that they can make no mistake by breeding all the good, big, sound work horses they can raise. The men who follow this advice wisely will never regret it, because there is no chance of an overproduction of drafters, possibly never, and certainly not for a good many years to come.

It costs more to breed and keep good, heavy horses than smaller and less efficient animals, so there is no more expense attached to having horses that will answer all purposes equal to any emergency.



This Pair of Fine Percheron Mares Can Pull a Mower Through Any Hay Field Without Fatigue and Keep Up a Good Gait.

they can breathe readily, making them good in wind. The greatest argument in favor of Percheron stallions is that they cross on small or medium sized mares better than any other breed. The size and shape seem to be the determining factors that enable small mares to foal easily when bred to Percheron stallions, and the offspring grow into animals much larger than the dam.

few that have been raised are almost a negligible quantity. Farmers thought that because prices on horses were low as compared with other kinds of live stock, that it would no longer pay to raise horses. They made a bad guess. They forgot that the history of the live stock business shows that there are ups and downs and that no one kind of live stock stays at the top always, nor at the bottom always. The cattle and hog men have had remarkably good prices for their products during the last few years and now the time of profitable values on good draft horses has arrived.

The automobile has, of course, displaced the small horse, but the good drafter is the kind of a farm horse we will always want. The coming into prominence of tractors has been of more benefit than hindrance to the draft horse business. The tractor is displacing inefficient farm horses, those that are small, also those that are large, but unfit for farm work. The tractor is a big help to the raising of good big drafters.

Every man who lives on the land should at least raise his own horses, even though he does not care to raise any to sell. If one is careful in conserving the rough feeds on his farm, he can easily produce his own horses



A Manure Spreader Is No Light Load when Pulled Over a Soft Field, but Here Is a Pair of Horses Equal to This and All Other Heavy Farm Work.

COVERLAND MAGAZINE

The Dominant Agricultural Publication of the Northwest.
(Combined with The Northwestern Farmer, the Sugar Beet News, and the Northwesterner).
Established 1903.

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THE ANDREWS PUBLICATIONS,
313, 315, 317, 319 Quimby Avenue,
Menominee, Michigan

Entered as second-class matter January 27, 1916, at the post office at Menominee, Michigan, under the Act of March 3, 1879.
Subscription price, postage paid, \$1.00 a year in advance.

Advertising rates on application.
Make all remittances to Cloverland Magazine, or to R. M. Andrews, Publisher.

HENRY A. PERRY, Editor.

OCTOBER, 1920

Acres of Wealth

MARINETTE COUNTY, Wisconsin, has gone over the top with its land-clearing program this year. Last winter an organization was perfected to clear 18,000 acres of stump land. It was estimated that this large acreage would be cleared of stumps within one year, but to the surprise of the most enthusiastic optimist, the huge job was done by the first of September. And practically every farmer in the county also increased his farm production this year. They all found time, somehow, to get rid of the stumps without interfering with their regular farm work.

In Rusk County, Wisconsin, a "million dollar" land-clearing contest was put on this year, valuable prizes being offered to the farmers clearing the most land, due allowance being made through a scoring system for acreages owned, difficulty of clearing, and tools available for performing the work. This system gave each man an equal show. The objective was to clear 6,000 acres of stumps this year, and it was called a "million dollar" contest because it was figured that 6,000 acres of cleared land would be worth one million dollars to Rusk County. The farmers in Rusk County cleaned up the 6,000 acres before the first of August, and had used up seventeen carloads of dynamite before the middle of July.

Over in Sawyer County, Wisconsin, a similar contest was on this year, and the "quota" was cleared before the summer was over. In Ashland County several land-clearing contests were launched, more to show just who could clear the most land, and a large area has been brought under cultivation during the summer.

And so the good work has gone on throughout Northern Wisconsin—all of it in the wake of the land-clearing specialists the Wisconsin College of Agriculture has been conducting for the past several years. Through these annual demonstrations the farmers have been taught the most economical methods of land-clearing and received inspiration to place larger areas under the plow without waiting a generation for the stumps to rot out.

The large number of acres prepared for cultivation this year alone is big compensation for all the land-clearing specialists the state had conducted, and this is not all of it. The land has been brought under the plow, will yield production year in and year out for this generation and generations to come. Land once cleared does not have to be cleared again. It is a permanent improvement.

The wealth that will accrue to these industrious farmers will be counted by millions of dollars, and the first actual returns will come in next year from the raw land. From that time on profits will increase and stimulate more land clearing.

Birds and the Farmer

RELIABLE naturalist authorities declare that if all the birds were exterminated the world would soon become a vast, barren wilderness. Insects would destroy the trees and every form of vegetation.

The most effective enemy of insect life is the insectivorous bird. It is estimated that each bird destroys 150 insects daily, and is easily worth \$5 annually for the good work performed. A bird census conducted by the Bureau of Biological Survey estimates that there are two birds to the acre on farm lands, or perhaps one billion birds guarding the farms east of the Mississippi River.

Insect damage in the United States is estimated at \$1,500,000,000 annually, so birds stand between a total loss of plant life, which would mean destruction of civilization, for human beings could not exist without trees, and grass, and vegetation. Nor could animal life exist without plant food. Thus birds saved for the farmers of the United States in 1919 a grand total of \$25,000,000,000, for that was the value placed upon the products of agriculture last year. The birds kept the insect loss down to \$1,500,000,000.

These enormous figures give some idea of the value of birds to the farmer.

Should birds be protected? Are they worth protecting?

Another census, a cat census, estimates that there are 25,000,000 cats in the United States, and cats are the worst enemy of birds. Bird students have found that as many as fourteen birds have been killed in one day by one cat—\$70 lost in one day to the farmer, and at the same time giving life to 2,100 insects on the same day, to multiply and proceed the next day, and all the days of the season, destroying crops and vegetation.

As a rule, cats have not proven a success in exterminating rats and mice, but they are expert bird hunters and much prefer birds to rodents. It is reasonable to assume that one cat can not destroy enough rats and mice in one day to save \$70 worth of grain, but they can destroy \$70 worth of birds in one day and give a lease of life to 2,100 insect pests to multiply by hundreds of thousands and do thousands of dollars' worth of damage to crops and vegetation.

It would be well worth while for farmers to weigh the value of the birds, and protect them in every manner possible, even if this protection goes to the length of destroying the roving cat.

Another Black Sheep

THERE are all sorts of black sheep—some in the flocks, and some among human beings. One of the newest black sheep in the human family is found in the element that connives at every possible opportunity to beat down the price of wool paid to the farmer.

Not so long ago the buyer who tramped about the country used for his argument that the wool was not up to standard, was poor grade, and talked "blood" and "fibre" to the farmer in a highly scientific manner, though in badly garbled English language. In due course of time when the farmer was convinced his wool was of a decidedly inferior quality, a consolation offer far below the real value of the wool was made, and the farmer, thinking he was actually getting a good bargain, unloaded the full clip on the spot. If he hesitated, usually a lecture on future low markets, big importations of wool, and a few other things served to throw the scare into him and he sold out.

Now times have changed. Most of the wool in the farming states, and a considerable portion of it in the range states, is snugly tucked away in wool pools. In most pools it has been graded by experts and each farmer will receive what his wool is worth. The buyer must now talk to a salesman who knows wool, so the buyers are not very prosperous this year be-

cause they can't buy on a highly speculative basis. It begins to look now as if the wool will be sold direct to the factories, and the farmers will get the benefit of the profit taken by a set of men who neither grew wool nor spun it.

Since the farmers have actually pooled their wool, and have demonstrated that they can hold their wool in the pool, efforts have been made to break up the new practice by all sorts of schemes. The latest effort is in a story that was given wide circulation to the effect that moths would get into this pooled wool and the farmers would suffer a terrific loss. But here again a black sheep is isolated, for the scientists of the U. S. Department of Agriculture have come out with a bold statement that the farmers need have no fear of moths—that wool has been known to lie in storage for fifteen years and suffered no damage from moths. Of course, precautions ought to be taken, but assurance is given by these government scientists that farmers having their wool in pools need have no fear of moth damage. In another place in this number of Cloverland Magazine will be found the statement in full, and after reading it, the farmer whose wool is in a local or state pool, will laugh at the absurd story that has been circulated, and continue to sit tight.

Knowing Each Other

FARMERS all over the country are beginning to know each other better, their families are becoming better acquainted, there is growing a better spirit of co-operation for the common good of the farm community.

This spirit of friendliness was more apparent this year than in any year of our history. There has been a larger turn-out at farmers' picnics, farm bureau gatherings, and assemblages for farmers this year than in any previous year. The farm bureau has been largely responsible for this favorable condition of affairs, but the chief instrumentality and of even more importance has been the county agent.

The county agent is just beginning to get in his best work. It has taken several years to educate the farmers as to the real value of the county agent, but these efforts have at last succeeded, and now his visits are eagerly looked forward to by the entire family on the farm.

The county agent has been responsible for the get-together spirit through the organization of live stock breeders' associations, co-operative buying and selling agencies, local and county institutes, country fairs and live stock sales, picnics and demonstrations, everything that brings farmers together at stated times and places. Every meeting, no matter how small, has been well advertised in the country press, and often supplemented with letter or postcard reminders and personal calls.

The farmers have responded and the more they get together the more they like it. The more they associate with each other the more friendly they become. The more they co-operate the more money they make. It's a wonderful thing—this knowing each other better.

Live Stock Loans

FARMERS need have no worry over reported "tight money" so far as live stock loans are concerned. The large banks have shut down on loans to industrial promotion that has for its object the sale of stock and manufacture of goods really unnecessary to meet the economic needs of the nation. There has been no serious restriction placed upon loans for essential industry.

Stockmen in some districts in the far western states are complaining about "tight money" and appear to be having difficulty in obtaining loans. But in these districts bankers have reason to be cautious, not because of instability of the live stock business under normal conditions. The operation of the dry farming homestead

laws in narrowing the ranges down to small areas, repeated droughts at heavy winter losses, all have had a pressing influence until live stock security in regions thus affected was not what it was a few years ago. In regions where these adverse conditions do not obtain, loans are negotiated without difficulty.

So far as the farmers are concerned they have no cause for worry about loans. Any farmer who has show his ability to take care of live stock and has the feed, may readily obtain money to restock or enlarge his herd, providing he wants to buy pure bred or good grade stock. Banks have closed down considerably on loans to buy poor stock, because the investment in poor stock is poor business and usually does not break even. So the banks are really aiding the farmer by closing down on loans to purchase low grade animals that will not be able to pay their way. I say nothing about making a profit. But the farmer with some experience and a worker, and with feed on his place, may obtain all the money he needs from his banker on live stock security.

Making Two Blades Grow

MAKING two blades of grass grow where one grew before, or for one acre to produce twice as much as normal, is real scientific agriculture. A little more work is required to do it, but not double the ordinary work of preparing and cultivating the field. A little more expense is incurred, but not twice the ordinary expense of seeding and harvesting the crop. In many cases the cost and labor is very little in excess of what would be required to produce an ordinary crop.

In preparing a seed bed very often one more discing, one more harrowing than ordinary, means more to the crop than all the previous preparation, because it puts the finishing touch upon the soil and makes a perfect seed bed. The last time over is quicker and easier, so the additional expense and labor is comparatively slight. Once more over with the cultivator requires little more time, but may conserve the moisture needed to make the difference between a good crop and a poor crop.

Besides plowing and cultivating, there necessarily enters into the scientific system of doubling the crop the matter of proper rotation and use of fertilizers. Proper crop rotation requires no more labor or expense than ordinary farming, but it insures better yields and reduces the cost of fertilization. The cost of fertilizer is more than offset by the increased yield.

So the system of making two blades grow where one grew before is a simple and inexpensive system after all. It is merely a little better cultivation, crop rotation and fertilization. And then the use of pure bred seed, properly inoculated with nitrogen, or treated before planting, and the trick is done. Try it on the system on your farm, even in one small field, and keep it up for a few years, and then the whole farm will be operated on this new plan, for it will pay in cash returns.

"BULSHEVICS"

A farmer in Wisconsin suggests that the scrub bull be known hereafter as a Bulshevik. He cites the fact that scrub bulls are the enemies of good production; that they levy upon the milk, cream, and butter checks and compel the farmer to keep cows, where the cows should keep the farmer.

There are more than 5,000 farmers in the Upper Peninsula of Michigan members of the Michigan State Farm Bureau. And only a few of the counties have completed their organizations.

The price of an acre of good farming land in Cloverland is equal to the rent for one year in the Corn Belt, yet there are renters who prefer to just keep on paying rent.



For President
WARREN G. HARDING

For Vice-President
CALVIN COOLIDGE

A Square Deal for the Farmer

If the farmers of the United States think they have nothing at stake in this election—if they think it is simply a contest between the political “ins” and “outs” and that it makes no particular difference to the farmer which wins—they are making a very great mistake, and are likely to realize it when too late to help themselves.

In some matters of interest to the farmers the two parties agree.

For example, both favor strengthening the rural credits statutes; both recognize the right of farmers to form co-operative associations for the marketing of their crops; both favor extending our foreign markets; both are pledged to the study of producing farm crops.

Now, the matters mentioned are important, but not nearly so important as certain other matters, and the way they look at these tremendously more important matters we find a radical difference between the Republican and the Democratic parties.

The difference is so vital that if the farmers of the country once understand it, there will be not the slightest doubt as to which party they will support at the polls in November.

The farm voice in government

The Republican party in its national platform is committed to “practical and adequate farm representation in the appointment of governmental officials and commissions.”

Are not farmers entitled to such representation? The Republican party thinks they are.

Under Republican rule, for sixteen years that sturdy and faithful Iowa farmer, “Tama Jim” Wilson, was at the head of the great Department of Agriculture.

What happened when the Democrats came into power?

Why, they turned out “Tama Jim” and put in a university professor who knew nothing about agriculture and gave no evidence of caring anything about it.

Farm interests are vitally affected by the administration of the Federal Reserve banking system, by the Farm Loan system, etc. Should not thoroughly competent men who understand the farmers’ needs and who have a sympathetic interest in agriculture be on these boards?

The Republican party thinks they should and says so.

Price fixing and price drives

Both parties were asked to promise to put an end to price-fixing on farm products and to government drives to beat down prices of farm products.

The Democrats refused to make such a pledge. The Republicans agreed and in their national platform are

pledged to “put an end to unnecessary price-fixing and ill-considered efforts arbitrarily to reduce prices of farm products which invariably result to the disadvantage of both producer and consumer.”

Do you remember what happened when we got in the war? Do you remember President Wilson’s definition of a “just price?” He said:

“By a just price I mean a price which will sustain the industries concerned in a high state of efficiency, provide a living for those who conduct them, enable them to pay good wages, and make possible the expansion of their enterprises,” etc.

And then do you remember what happened? Government contracts of all kinds were let on a cost-plus basis. That is, the manufacturer was allowed to figure all of the cost of every kind which he incurred (and he was not restricted in his expense) and in addition was allowed to figure a handsome percentage on top of all his expense and fix his price to cover everything.

Was the farmer allowed that “just price” which was granted so freely to others? He was not. Prices on some of his products were absolutely fixed, and without investigation of the cost of production.

One prominent member of the Democratic administration when asked about the cost of production of farm crops is reported to have said that this was no time to investigate farm costs of production; that it was the farmer’s business to produce and not bother his head about the cost.

Throughout the war the farmer was frantically urged to produce by one crowd while another crowd was using every device of market manipulation to hold down prices of farm products. Was that fair?

Government drives against farm prices

But, someone will say, we were in war and the farmer should not complain about what it was necessary to do, even if they didn’t do it to others.

Very well. Let us overlook what happened during the war. Let us wipe the slate clean up to the signing of the armistice. Let us consider what has happened to the farmer since the war ended.

The farmer had been urged to produce to the limit and had been assured that even if peace came, all he could grow would sell at profitable prices.

Do you remember the price drive in January, 1919, within three months after the armistice had been signed?

Do you remember the more determined drive in July, 1919, when hogs dropped from \$22.10 on July 15 to \$14.50 on October 15, although pork products to the consumer dropped on an average less than 10%? In June, 1920, hogs were selling at \$5.50 less per hundred than in June, 1919, but retail ham prices were \$3.00 per hundred higher.

As a result of the government drive the producer received less and the consumer paid more. Who benefited?

And do you remember the government drive of the last three months, and what it has done to the prices of grains and livestock? Within two months the prospective value of the 1920 corn crop decreased three-fourths of a billion dollars. Great advertisements announced that the government proposed to cut down the cost of living by dumping on the market the millions of pounds of government surplus meat at bargain prices.

Have you been making so much money on your cattle and hogs that you can afford further reductions in prices?

In July, 1919, No. 2 corn sold in Chicago for \$2.19 per bushel; in July, 1920, for \$1.56, a decrease of 29%. In July, 1919, steers sold in Chicago for \$15.60; in July, 1920, for \$15.00, a decrease of 4%. In July, 1919, hogs sold in Chicago for \$21.55; in July, 1920, for \$14.85, a decrease of 31%. The decrease in wool prices was 25%. In beating down prices of these products did the government help the consumer?

According to the United States Bureau of Labor Statistics, the consumer paid 24.1% more for his food articles in July, 1920, than in July, 1919. He paid 12.4% more for his clothing; 47.4% more for his fuel and lighting. During the same time, metals and metal products increased 20.9%, lumber and building material 79%, house furnishing goods, 47.8%. But according to the same authority all farm products had decreased over 4% in July, 1920, as compared with July, 1919.

We shall not deal further with this sickening story of incompetent and inefficient government meddling. You know the story in most of its details.

As you think it over, remember this one outstanding fact: That the Democratic party, if continued in power, is committed to the same sort of a policy in dealing with the farmer and stockman that it has followed during the past two years. It was asked to promise to stop officious meddling which benefits only the speculator and the profiteer, but it refused to make such a promise.

In justice to themselves and their families and the generations to come after them, the farmers of the United States should put in power the Republican party which realizes its obligations to them and to all other classes of citizens and which further realizes that if the farmer is not given a square deal, our agriculture is going to be wrecked.

Talk to your neighbors about these things and make sure that they understand what a vital interest the farmer has in the presidential election November 2.

Republican National Committee

Republican National Committee,
Auditorium Hotel, Chicago, Ill.

Please send me, free and postpaid, copy of Senator Harding’s Address on the present day problems of the farmer.

Name
Address

The Popularity of GOLDEN CUP COFFEE

IS SHOWN

by the thousands of suggestions submitted in our Great Cash Prize Contest which ends on October 15, 1920.

The judges will determine and make the prize awards on Oct. 16th, and a full list of prize-winners will be published in Cloverland Magazine for November.

CARPENTER COOK COMPANY

MENOMINEE, MICHIGAN

Exclusive Distributors of GOLDEN
CUP COFFEE

With Bridges Burned

By REX BEACH

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SYNOPSIS:

Louis Mitchell was laid off with other employees of Comer and Mathison, contractors, when the bottom dropped out of the steel business. The firm had no work, and rigid retrenchment was the policy. The blow fell heavily upon young Mitchell, recently married, wounding his pride more than questioning his ability as a salesman.

Mitchell had heard that a firm in London was advertising for bids to build cyanide tanks in South Africa to replace property that had been destroyed by the Boers. It was a \$3,000,000 job. The firm scoffed at Mitchell's proposition to attempt to land the contract.

Mitchell talked the matter over with his young wife and they decided he could get the job. Out of \$1,000 they had saved Mitchell took \$900 and sailed for England, to figure and bid against the biggest competition he had ever been in, bid on the biggest job he had ever tackled, and in a foreign country where all conditions, manners and customs were strange.

He arrived in London bubbling over with enthusiasm and confidence, unaware of the net of technicalities that enmeshed him.

THE first evening in London he fattened himself for the fray with a hearty dinner, then he strove to get acquainted with his neighbors and his environment. The nervous force within him needed outlet, but he was frowned upon at every quarter. Even the waiter at his table made it patent that his social standing would not permit him to indulge in the slightest intimacy with chance guests of the hotel, while the young Earl who had permitted Mitchell to register at the desk declined utterly to go further with their acquaintance. Louis spent the evening at the Empire, and the next morning, which was Sunday, he put in on the top of a 'bus, laying himself open to the advances of anybody who cared to pay him the slightest attention. But he was ignored; even the driver, who spoke a foreign language, evidently considered him a suspicious character. Like a wise general, Louis reconnoitered No. 42½ Threadneedle Street during the afternoon, noting the lay of the land and deciding upon modes of transportation to and from. Under the pressure of circumstance he chose a Cannon Street 'bus, fare "tuppence."

Now garrulity is a disease that must either break out or strike inward with fatal results. When Sunday night came, Mitchell was about ready to fare forth with gun and mask and take conversation away from anybody who had it to spare. He had begun to fear that his vocal cords would atrophy.

He was up early, had breakfasted, and was at 42½ Threadneedle Street promptly at nine, beating the janitor by some twenty minutes. During the next hour and a half he gleaned considerable information regarding British business methods, the while he monotonously pounded the sidewalk.

At nine-thirty a waiting party of dignified office boys made a cautious approach. At nine-thirty-five there came the main army of clerks, only they were not clerks, but "clarks"—very impressive gentlemen with gloves, spats, sticks, silk hats and sack coats. At this same time, evidently by appointment, came the charwomen—"char" being snelled s-c-r-u-b, and affording an example of how pure English has been corrupted out in the Americas.

After the arrival of the head "clarks" and stenographers at nine-forty-five, there ensued fifteen minutes of guarded conversation in front of the offices. During this time the public issues of the day were settled and the nation's policies outlined. At ten o'clock the offices were formally opened, and at ten-thirty a reception

was tendered to the managers who arrived dressed as for any well-conducted afternoon function.

To Mitchell, who was accustomed to the feverish, football methods of American business life, all this was vastly edifying and instructive; was even soothing, although he was vaguely offended to note that passerby avoided him as if fearful of contamination.

Upon entering 42½ Threadneedle Street, he was halted by an imperious office-boy. To him Louis gave his card with a request that it be handed to Mr. Peebleby, then he seated himself and for an hour witnessed a parade of unsmiling, silk-hatted gentlemen pass in and out of Mr. Peebleby's office. Growing impatient, a length, he inquired of the boy:

"Is somebody dead around here or is this where the City Council meets?"

"I beg pardon?" The lad was polite in a cool, superior way.

"I say, what's the idea of the pal bearers?"

The youth's expression froze to one of disapproval and suspicion.

"I mean the parade. Are these fellows Congress or minstrel-men?"

His hearer shrugged and smiled vacuously, then turned away, whereupon Mitchell took him firmly by the arm.

"Look here, my boy," he began. "There seems to be a lot of information coming to both of us. Who are these over-dressed gentlemen I see promenading back and forth?"

"Why—they're callers, customers, representatives of the firms we do business with, sir."

"Is this Guy Fawkes Day?"

"No, sir."

"Are these men here on business? Are any of them salesmen, for instance?"

"Yes, sir; some of them. Certainly sir."

"To see Mr. Peebleby about the new construction work?"

"No doubt."

"So, you're letting them get the edge on me."

"I beg pardon?"

"Never mind. I merely wanted to assure you that I have some olive spats, a high hat, and a walking-stick, but I left them at my hotel. I'm a salesman, too. Now then, let's get down to business. I've come all the way from America to hire an office boy. I've heard so much about English office-boys that I thought I'd run over and get one. Would you entertain a proposition to go back to America and become my partner?"

The boy rolled his eyes; it was plain that he was seriously alarmed. "You are ragging me, sir," he stammered, uncertainly.

"Perish the thought!"

"I—I— Really, sir—"

"I pay twenty-five dollars a week to office-boys. That's five 'pun' in your money, I believe. But, meanwhile, now that I'm in London, I have some business with Mr. Peebleby." Mitchell produced an American silver dollar and forced it into the boy's hand, whereupon the latter blinked in a dazed manner, then hazarded the opinion that Mr. Peebleby might be at leisure if Mr. Mitchell had another card.

"Never mind the card; I can't trust you with another one. Just show me the trail and I'll take it myself. That's a way we have in America."

A moment later he was knocking at a door emblazoned, "Director General." Without awaiting an invitation, he turned the knob and walked in. Before the astonished Mr. Peebleby could expostulate he had introduced

(Continued on page 23)

Poultry Tips from University Farm University of Minnesota

WHY CULLING PAYS

AN uncultured flock of 992 hens laid 3,576 eggs in the week before being culled. Seventy-nine weak layers were cast out. The culled flock of 113 came right back the next week with a record of 3,520 eggs, while the seventy-nine culls, living under precisely similar conditions, and doing their very best, were laying only eighty-five eggs. The market value of the eggs laid by the culls was around \$3.50. The cost of feed alone for them at a cent a day for each hen was \$5.53 for the week. Figures like these say the poultry specialists at Minnesota University Farm, show the importance of keeping only the best layers.

CLEAN POULTRY HOUSES

THE condition of their winter quarters is a potent factor upon the productivity of poultry flocks. Only healthy, contented hens produce eggs in paying numbers. While on range most hens both lay and pay, because conditions are such that they are perfectly healthy. Sanitation then takes care of itself and constant exercise, coupled with natural selection of food, giving widely differing properties, gives ideal conditions for high production. Because conditions differ widely in these particulars during the seasons when fowls are confined, results are not as satisfactory.

"To counteract unsatisfactory results," says A. C. Smith, poultry husbandry leader at Minnesota University Farm, "proper sanitary measures must be practiced. Begin by putting the young flock in a clean house this fall. Clean and disinfect the house thoroughly. Remove and burn all floor and nest litters. Remove all fittings, such as nest, roost, roosting platforms and water stands; clean and paint with a good liquid disinfectant. Kerosene to which has been added a little strong, crude carbolic acid serves the purpose, as does several commercial disinfectants.

"Brush down the walls and ceiling, remove as much of the old earth as seems necessary, paint the walls with the same disinfectant as the fittings and put in fine or sandy loam to the depth of four to six inches. Replace the fittings, and let the house air well for a week or more before putting in the young stock."

KEEP FIRST CROWING BIRD

EARLY feathering and early crowing mean early maturity. Early maturity means early profits. Always select the cockerels that feather first and then select from them the one that crows first, is the advice of Miss Annabell Campbell, University Farm, poultry specialist in the office of extension work with women.

Quick maturity—the ability of the pullet to lay at an early age and thus get out of the debtor class—is to a great extent hereditary.

Miss Campbell has a photograph of a Barred Plymouth Rock pullet that was hatched March 1 and laid an egg on July 7. Back of her, says Miss Campbell, is a long line of ancestry elected and preserved for quick maturing characteristics.

POULTRY RAISING ON GAIN

INCREASING development in Minnesota of the business of growing standard bred poultry is shown in the figures of state aid paid each year to county poultry associations as premiums on exhibits at county fairs and other contests.

N. E. Chapman, of University Farm, poultryman with the extension division of the college of agriculture, says that in 1916 the sums so paid to the counties by the state amounted to

COUNCIL MEATS

Better Meats That Cost Less
No Waste · No Ice Needed
Always Tender
Ready-Cooked To Perfection

Made in
Cloverland
in our
\$2,000,000
Packing Plant
at Green Bay,
Wisconsin

Every Council Brand
Label
Advertises Cloverland

Ours is the largest
producing industry in
Cloverland today.
Make it yours, too.

15% to 25% More Actual Meat to the Pound

YOU buy uncooked meat and you pay for trimmings and for bones. You can't eat them—they're not meat. But you pay for them—at meat prices.

In ready-cooked Council Meats there are no bones, no waste, just meat—fine, tender cuts, cooked as you like them, seasoned as you season them. Ready to eat except for a few minutes' warming.

And they can be had in almost endless variety; roast beef, roast mutton, hamburger steak and onions, corned beef hash, etc., etc.—each as good as it can be and at prices that give you 15 to 25% more actual meat to the pound (counting the shrinkage in cooking) at the same price per pound you're now paying.

Therefore, to use Council Meats is to actually save from 15 to 25c out of each dollar you now spend for meat. You can't afford to overlook such opportunity for economy.

INDIAN PACKING CORPORATION
Consumers' Building, Chicago, Ill.

Six Economical Meat Dishes

ROAST MUTTON VIENNA STYLE SAUSAGE POTTED TONGUE
For 5-70c For 5-60c For 5-80c

HAMBURGER STEAK VEAL LOAF OVEN BAKED BEANS
AND ONIONS For 5-60c For 5-60c For 4-25c



\$6,888; in 1917 more associations had been organized and the amount paid to them was \$7,981.43; in 1918 it was \$11,756.96, and in 1919 it was \$18,549.90. This shows a constant and steady growth in the business of poultry raising on Minnesota farms.

The sum of \$23,116.56 is available for 1920 out of the state's appropriation and the amount carried over. Poultry associations in seventy-five counties received state aid with which to pay premiums last year. The maximum amount allowed a county is \$400.

NOT SO MANY FIELD BEANS

FIELD bean production and acreage in the leading states except Colorado shows a considerable decrease. The official September estimate is 9,101,000 bushels, compared with 11,483,000 last season. The reduced planting was a natural sequence of the depressed condition for the bean markets following the heavy production and imports of the two preceding seasons.

No, the country is not going to smash unless "so-and-so" is elected. We shall pull through this campaign just as we always have done, and continue working, and smiling and cussin'.

The Menominee River Sugar Company began on Oct. 11th its annual production of beet sugar.

The beet growers are given the advantage of every rise in the sugar market.



It's a man's job to keep up with Michigan

In the passing of a decade, almost, Michigan, by a phenomenal growth, has leaped from comparative industrial obscurity to a commanding place among the commercial centers of the nation.

Hand in hand with this expansion, has grown the demand for telephone service in Michigan. Some idea of the problems confronting the Michigan State Telephone Company as the result of this advance in industry and population may be gained from consideration of these facts:

In 1910 the state had a population of 2,810,000, served by 143,300 of our telephones, or one for every 19½ persons.

In 1920, it is estimated from the available census returns, the population is 3,210,000, a growth of approximately 400,000, and is served by 292,851 of our telephones, meaning one for each 11 persons.

Therefore, while the population has grown 14.2 per cent, the number of telephones has grown 104.3 per cent. The company has, in the face of war conditions, material and labor shortage and skyrocketing costs, more than kept pace with Michigan's growth.

It has been necessary, in order to meet the myriad problems confronting the telephone service, for the company to make surveys and estimates, years in advance, of the volume and direction of population and industrial growth in order to intelligently build to meet it. All this company's resources and efforts have been used to meet Michigan's requirements, as indicated in these surveys.

Had the 14.2 per cent increase in population been evenly distributed the problem would have been simplified, but this growth has been greater at some points than at others. There have been times, therefore, when the surveys did not compare with requirements and times when the engineer's estimates could not be met.

But the telephone people, facing these and many other obstacles, carried on and are still carrying on, determined that their future efforts shall exceed even those of the past.

They are anxious to have the people they serve know what they are doing to solve these problems and that despite all difficulties they are determined to make Michigan's telephone service the best obtainable anywhere.

MICHIGAN STATE TELEPHONE COMPANY



Our Ambition—Ideal Telephone Service for Michigan

PRICES OF SUGAR AND SUGAR BEETS

EDITOR, Cloverland Magazine: I note in the September 24th issue of the Bark River-Schaffer News, an item headed "MAY REFUSE TO SIGN UP CONTRACTS. PROMISED SLUMP IN PRICE OF SUGAR EXCITES SUSPICION OF BEET GROWERS," which appears on page 1 column one.

It would appear that the members of the Farm Bureau Association in their meeting at Bark River, have taken up the question of the price of sugar because it governs partially the price which the farmer shall receive for his beets. The fact that the recent slump in the price of sugar excites their suspicion would lead to the inference that the local sugar company—ourselves—had exerted hidden-hand influence to bring about this slump, whereas, the facts in the case are that last fall when we were operating we were notified by Attorney General Palmer to the effect that upon investigation they had found that 10½¢ was a reasonable price for sugar, and if we sold at a higher price our action would be investigated, and, if we were found guilty of profiteering we would be prosecuted under the Lever Act. Not only were we notified of this limitation of price, but also closely watched from time to time to determine whether we were holding sugar in storage with a view to holding it for higher prices

later on. The result of this action on the part of the Attorney General was to force us to sell all of our produce before January 1st, 1920, at a low price. This was true of nearly all of the beet sugar producers in this country, and after the supply of domestic beet sugar was practically exhausted, then the foreign grown sugar, principally from Cuba, came into the market and the price soared to unheard of heights, and everybody knows throughout the period from January first, until we began operations in October, we have had no sugar whatever to offer, and have had no voice whatever in the making of the prices. Now that the beet sugar is about to come into the market again and furnish a supply of the home grown product, there has been a material slump, and it would appear that the Farm Bureau Association has reasoned that we might have something to do with this price condition, whereas we have had nothing more to say about it than the King of Siam.

Since this first indication of the feeling of the Farm Bureau Association has appeared in your county, I am taking the liberty of calling your attention to the matter.

G. W. McCORMICK,

General Manager.

Sept. 28, 1920, Menominee River Sugar Company.

When Springs Break - put on **VULCAN** The Replacement Spring

Ford Owners of America:

When Your Springs Break
put on **VULCAN**
The Replacement Spring

No. 2000
Regular VULCAN
Ford Front
\$3.50
(East of Rocky Mts.)

No. 2001
Regular VULCAN
Ford Rear
\$10.75
(East of Rocky Mts.)

No. 2004
Special VULCAN
Ford Front
for Delivery Cars, Trucks, Taxis, etc.
\$6.25
(East of Rocky Mts.)

No. 2005
Special VULCAN
Ford Rear
for Delivery Cars, Trucks, Taxis, etc.
\$16.50
(East of Rocky Mts.)

Ask your dealer for a VULCAN spring for your Ford car—our VULCAN name plate on every one. These springs are the expression of our highest ideals of careful workmanship. Quantity production and organized distribution enables us to put them in your hands at prices that are attractive. Ask for VULCAN and demand that our name plate be shown you.

Jenkins Vulcan Spring Co.
Richmond, Indiana.

When Springs Break, Put On VULCAN

VULCAN has challenged the world's attention. VULCAN is fully meeting the demand for good springs—for all cars.

Nearly Half of the World's
Cars Are Fords

On October 9th our VULCAN Ford line will have been laid before the world's Ford owners in The Saturday Evening

Post
Literary Digest
Collier's and
Leslie's

with a combined circulation of five million. This campaign will be faithfully carried on.

You may expect a sustained and growing demand for VULCAN springs—our name plate on every one. Most good jobbers are prepared to supply your VULCAN requirements, and at prices to yield you a most agreeable profit. We advise you to show prominently our VULCAN display rack (FREE) with an assorted stock, especially of these Ford numbers.

Morley-Murphy Co.
GREEN BAY, WIS.

Wool Men to Work Together and Patiently Wait

By THEODORE MACKLIN

Specialist, Agricultural Marketing, Wisconsin College of Agriculture

If you want to kill co-operation, sell your wool now!

If you want to prove the strength of co-operation as a power to consolidate and systematize hitherto inefficient marketing of wool, either wait or the wool to be sold or finance your own marketing by borrowing.

There are at the present time two principal methods of marketing wool. The least efficient of these two methods has been employed in handling the product and in consequence there has developed over a period of years dissatisfactions which have recently resulted in experiments of profound importance. These experiments were conducted by farmers during the past two years and are being continued by them for the 1920 wool clip. Naturally, a successful outgrowth from these experiments would upset the marketing machinery which previously handled the wool clip.

That there should be opposition to any change is to be expected. But in his particular case there is no justification for opposition against farmers' plans to comprehensively market wool. The very fact that there is such widespread opposition is proof of the resistance which inefficient marketing agencies and methods put up against the introduction of more efficient methods or even agencies.

To the usual farmer wool is an almost insignificant source of income. Being a sideline issue on most farms, the farmers have had but small quantities to market. They have had to devote their attention to other matters so much that it has not been worth the while to



The Farm Flock

try improving an unsystematic and expensive method of marketing wool. But at last the farmers have found a way to stimulate improvement by their own efforts. The very failure of private marketing concerns to build up an inexpensive, comprehensive wool marketing system has obliged the farmers to try to make improvements themselves. This they could attempt to do only by actually doing the marketing themselves. In order to establish long-needed improvements which many years ago were introduced into the more important marketing methods, farmers needed facts. These were obtained and indicated wherein the old method was weak and expensive and just what is needed to be done to effect improvement. The outstanding facts may be concisely stated as follows:

(1) It was found that wool was a sideline production on most farms and brought in a very small fraction of farm income as a rule.

(2) Being a sideline output, wool did not constitute a very large volume of business either in quantity or value or the single community or even county.

(3) Owing to a small volume of wool to be marketed at a shipping point, no middleman, handling only a small quantity, could afford to become very expert as a local wool dealer. Consequently he rarely knew wool grades, had unreliable information as to the real value of wool that he handled, and therefore had to play safe by paying the minimum prices that farmers would accept. Besides, his costs were excessive on account of the small volume handled and the lack of facilities for proper handling.

(4) These evils, inherent in a small

business, constitute the problem which farmers can eliminate by pooling their wool. But just as the private middleman had to finance the buying of wool, when he did the marketing, so also the farmer must now finance the marketing of wool when he proposes to do the marketing himself. This financing the farmer can accomplish either by waiting for his money until the wool is sold or by paying interest to the banks and borrowing the money until the wool is paid for. Will the farmer do one or the other of these two things? If he will not, he thereby refuses to do what he can to establish the most efficient kind of a wool marketing method. If the farmer fails to create efficient co-operative wool marketing, possibly private agencies will systematize wool marketing. They can do so. But that they will seem unlikely if we may forecast the future from present competitive conditions or on the basis of past experience.

The sideline character of butterfat production in states like Kansas long ago resulted in efficient private butter-making and marketing methods. These efficient methods are now successfully being developed by farmers co-operatively in Nebraska in order to give

farmers the profits of efficient marketing. In other lines farmers have followed efficient methods of marketing and by co-operation have received competitive prices for products and in addition have received the profits that otherwise were earned by private middlemen. There is no question but that farmers can successfully market

their wool in a country-wide, comprehensive and co-ordinated manner. To do so they, however, will have to finance their own operations.

Just now there is more or less widespread unrest over wool prices and farmers are apparently restless about waiting for their money. But there is no justifiable reason for this. Through the Federal Reserve System member banks can and are rediscounting wool warehouse certificates and farmers are receiving a large proportion of the best present estimate of wool values.

If farmers were to sell their wool now on the basis of these comparatively low prices, that would be all they would receive for their clip. Then later the price in going up would not benefit the growers. But if instead farmers put their wool in their own pooling warehouse, borrow on the warehouse certificate and wait for the wool to be sold to the mills, while they may have to pay out a little interest, they will, nevertheless, receive the maximum instead of minimum average prices for the clip. This is just what the private middlemen do. They borrow on the wool warehouse certificate and advance this borrowed money to pay farmers and then wait for the profits to be earned in marketing.

There is no reason why farmers should not borrow the money themselves in the same manner and then, after paying themselves this borrowed money, wait for the profits that their co-operative middleman will make as surely as do the private middlemen.

If you want to prove the strength of co-operation as a power to consolidate and systematize hitherto inefficient marketing of wool, either wait for the wool to be sold or finance your own marketing by borrowing.



International Farm Machine Headquarters

TODAY the country roads lead from millions of farm homes to the establishments of the International Dealers—and back again to the fields. Quality machines, fair dealing, and a matchless service policy form a triple foundation that has made the store of the International Dealer an **essential** institution in any community. Choose your farm equipment there—and **standardize** your machines as you would your cattle, hogs, and poultry. This is the safe course, with many benefits. Then you may take quality and efficiency for granted and rely on your dealer and on us for service and help at any time, in any emergency. The International Dealer will help you stock your farm with thoroughbred machines.

INTERNATIONAL HARVESTER COMPANY

CHICAGO OF AMERICA USA
(INCORPORATED)

Branch Houses:

GRAND RAPIDS, SAGINAW, DETROIT, Michigan
GREEN BAY, EAU CLAIRE, Wisconsin
ST. CLOUD, Minnesota

MORE ABOUT SHODDY

By HOWARD E. GREENE

Secretary National Sheep and Wool Bureau of America

HALF a billion pounds of shoddy were thrown on the American clothing market in 1919, while 1,000,000,000 pounds of unmanufactured, virgin wool were accumulating in the storehouses. Shoddy is made of woolen rags, re-spun perhaps as often as eight times. It is woven with a small percentage of virgin wool to stick the broken fibres together. Of the 620,000,000 yards of "all wool" cloth produced by the nation's mills, the amount of shoddy used would have produced 380,000,000 yards, if straight shoddy cloth had been turned out. Mixed with a little new wool, it entered into the composition of a vastly greater yardage. In the same period, the amount of new wool used would have produced 240,000,000 yards of virgin wool cloth, if it had not been adulterated with shoddy.

These statistics were made public by the National Sheep and Wool Bureau of America, which is organizing the sheep, farm and business interests of the country behind the French-Capper "Truth in Fabric bill." This bill was left in the hands of the Interstate Commerce Committee of both Houses of Congress at adjournment. It is designed to compel manufacturers to stamp their cloth with the percentages of virgin wool and of shoddy it contains.

Last year, as never before, the shoddy interests succeeded in foisting their goods on the public. Only 600,000,000 pounds of wool in its natural state, or 300,000,000 pounds of cleaned wool, were converted into cloth. Most of this amount was mixed with shoddy to make it stick together. If the entire 300,000,000 pounds had been made into pure virgin wool cloth, it would have provided only 240,000,000 yards, as against the 380,000,000 yards of shoddy goods.

It would have taken 1,550,000,000 pounds of virgin wool to have made the entire 620,000,000 yards of "all wool" cloth turned out by our mills. But the entire amount need not have been made of virgin wool. There should have been virgin wool cloth for those who could afford it and shoddy for thinner purses. That would have provided for fair competition between virgin wool cloth and shoddy and for a fair range of prices. Instead, through the lack of stamping, shoddies were sold as "all wool" and the public, accepting "all wool" to mean virgin wool, was denied the right of choice and the benefit of a range of prices.

Today, the stores are filled with shoddy clothing and 1,000,000,000

pounds of virgin wool fill the storehouses. The shoddy interests have become so thoroughly entrenched through the right of the producer to masquerade as "new wool" under the popular term, "all wool," that it has been able to create in their interest an artificial over-supply of virgin wool.

"In spite of this 1,000,000,000 pounds in the storehouses, the world produces a third less wool annually than it needs and the demand for new wool is as great as ever. The shoddy manufacturers have simply thrown themselves between the public with its demand for virgin wool and the sheep men with their supply.

As a result, the wool growers are being forced into insolvency. To save those of the West from immediate ruin, the Federal Reserve Board is authorized the San Francisco Federal Reserve bank to advance money to help them carry their unsold clip. However, this aid affords only temporary relief. The farmers and sheep men must have permanent relief from the unfair competition of rag-pickers.

That 1,000,000,000 pounds of unmanufactured, virgin wool in the storehouses, kept from the public who wants and needs it by the legal right of manufacturers to use unidentified shoddy in their "all wool" cloth, threatens the annihilation of the sheep and wool industry. It is to the interest of every voter to get behind the French-Capper "Truth in Fabric" bill and see that it is enacted into law at the next session of Congress. Between enlightened public opinion and the "Truth in Fabric law," the wool growers may be able to recover some of this spring's losses at next spring's clip.

While loaning the sheep men money to withstand the rag-pickers' competition, the United States Government is doing more than any other single agency to swell the rag-pickers' income. In the supplement to "Commerce Reports," issued April 20, 1930, the Bureau of Foreign and Domestic Commerce, of the Department of Commerce, reports under the caption, "Army Garments Salvaged:"

"The number of garments received at Dewsbury (Great Britain), each week is about 200,000 and the estimated total since the depot was established is no less than 150,000,000, weighing about 44,000 tons. * * * Those that are too dilapidated for further wear are classified, blended and sold as woolen rags to shoddy at cloth manufacturers to be pulled in fibre and re-made into cloth, principally for the civil use trade."

Solving Rural Church Problems

THAT the rural church of Michigan must undergo broad readjustment in order to fit itself for leadership of the new economic and social life of the country districts was the dominant thought in the minds of more than 150 ministers of the state who attended the two weeks' rural conference at the Michigan Agricultural College from July 6 to 16.

Facing the problems of the church squarely, speakers of national reputation all hammered on the need for general readjustment of the standards of rural ministers, and showed that in this readjustment would come added power and leadership. By keeping abreast with the changes in standards of living the rural pastor will be able to solve many of his vexing problems. Automobiles, "movies," good clothes and other modern advantages must all be recognized as perfectly legitimate "wants" for the members of any congregation. Conditions demand a new and higher type of rural life, and the ministers must take the lead in building this.

The conference was a co-operative, interdenominational one, Methodist, Baptist, Congregational, Presbyterian,

Disciple, Evangelical, Episcopal and Reformed churches all being represented. This co-operative plan made possible the building of a very strong program, with the leading men from each denomination among the speakers.

Everything from community games to English literature, economics, or purely church matters found a place in the conference, which became practically a ministers' school. Leading speakers included Dr. Warren H. Wilson, church and country life worker New York City; Prof. C. H. Moehle of Rochester University; Dr. E. J. Ross, professor of sociology, University of Wisconsin; Dr. W. W. Diehl of Albion, Mich.; and more than twenty others.

Request that the conference be made a permanent yearly institution, was contained in resolutions passed by the assembled pastors.

"This conference is one of the best church gatherings of its kind in the country," said Dr. Diehl, "and no Michigan rural church can afford to let its pastor miss the stimulating and educational work of the annual gathering."



Keep the Facts before you

For three centuries, "Old Faithful" HEMLOCK has been a leading wood for all farm uses. Hemlock barns and houses our great-grandfathers built are still in daily use.

Such a record is not made without good reasons, and these good reasons may as well be working in your interest.

We will gladly supply you free with any of the "Old Faithful" building books below. Coupon in each book good for FREE, FULL-SIZE, WORKING plans at your lumber dealer's. Send his name please.

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THE HEMLOCK MANUFACTURERS

(of Wisconsin and Northern Michigan) Offices 312 F. R. A. Bldg., Oshkosh, Wis.

We spread the good news about "Old Faithful" HEMLOCK but we do not sell it. Get it from your LOCAL LUMBER DEALER.

"Old Faithful"
HEMLOCK
300 years on American Farms

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COAL**

CENTRAL WEST COAL CO.

MENOMINEE, MICHIGAN

MORE FARMERS

There is room for 100,000 new farmers on the cut-over lands tributary to the SOO LINE in Upper Michigan, Upper Wisconsin, and Northern Minnesota.

Good lands which will fulfill any conditions imposed by the new farmer as to location, soil, climate, rainfall, water-supply, roads, schools, churches and neighbors. Lands which can be bought at a price that will fit the pocket of the poor man, as well as meet the requirements of the man of means. Write for information,

H. S. FUNSTON, Land Commissioner SOO Line Railway
MINNEAPOLIS, MINN.

Wisconsin Central Ry. Land Grant Lands in Wisconsin

WHAT DOES THE FARM PRESS DO?

MANUFACTURERS, wholesalers and jobbers want to know about the efficiency of their mediums of advertisement, just what classes of publications reach the best regions for sales of their products with reference to the character of such publications and the regard with which they are considered in the eyes of their circulation.

The farm press is, of course, published in the interests of farmers. Its mission is to encourage better methods of crop and live stock production, to stimulate the use of labor-saving machinery that has proved meritorious and economical, to broaden the tilled acreage, to induce settlement of idle land, and perform all functions within its scope of publicity that will make farm life better and more profitable. This work the agricultural publication that is really carrying on this splendid work co-operates with the agricultural colleges, their extension service and the county agents who carry the work of the state college and branch experiment stations right down to the door of the farmer.

These functions of the farm press are not known generally in the business world, because it is shrouded in deepest obscurity like the farmer himself, content to go along in a quiet way, working hand in hand with the tiller of the soil to increase production in order that a hungry industrial world may be fed and all business stabilized on this basis of all industry.

A middle western manufacturer who wanted to know a little bit more about the farm press, what it is actually doing, and whether the farmers really derive much help from it, recently asked this question of A. W. Hopkins, Editor in the Department of Agricultural Journalism, Wisconsin College of Agriculture. Following is Mr. Hopkins' reply:

My Dear Sir:

"The farmer can and does derive much help from the average farm paper," would be our answer to the question in your letter of July 8.

Even casual observation will show at the farmer reads farm papers, it surveys which have been made in Wisconsin indicate that a large number of farmers subscribe to, read, and follow one or more farm papers.

The extent to which the farmers of a country appreciate the contents of a farm papers is shown not only by a large number of inquiries which constantly are being received by the editors, but also by the influence which a farm press has actually had upon farm practices and agricultural thought.

Through co-operation with various agricultural agencies such as the experiment stations, the farm press is doing educational work which is of enormous value to the farmers. At the present time the better sire cam-

paign, the tuberculosis clean-up, the cow-testing work, the pure-bred grain drive, the county agent movement, farmers' organization programs, legumes for feed and fertility plans, boys' and girls' club work, better rural schools and churches appeals, plant and animal disease prevention, and many other desirable programs are receiving consistent stimulation from the farm press.

We need hardly point out to you Wisconsin's supremacy, for example, in various lines of agricultural endeavor, but I do wish to suggest that this progress is due to the teamwork of the various forces interested in its agricultural development. One of the most helpful and powerful of these co-operating agencies has been the press. Wisconsin owes much to her farm papers, and also to her weekly and daily publications. Possibly you received the special bulletin sent out last December, from the Washington headquarters of the Chamber of Commerce of the United States of America, in which the following statement was made by a committee of which A. W. Douglas, of St. Louis, was the chairman: "A good many states have become fired with an ambition to rival Wisconsin with her annual production of over \$200,000,000 dairy products, in her case not because of any special advantages of soil and climate, but only of much gray-matter intelligently applied."

As typical of the manner in which farmers of this state have accepted scientific help offered by their experiment station through its publications and through the farm press of the state, let me cite the case of Wisconsin's hemp industry. No hemp was grown in the state until the investigators proved a few years ago that the plant could be used successfully in eradicating certain weeds, that machinery could be made for harvesting and handling the fibre, and that the crop could be profitably grown. Today Wisconsin produces more hemp than any other state in the country.

Most of our farm papers are certainly doing real good work and merit support.

Despite the inadequacy of a brief letter on this point, I hope that you may recognize the close relation between the progress of the American farmer and the forces, such as the farm press, which are vitally interested in his progress. The successful farm papers of the country are successful because they are rendering a service to their readers and to progressive and practical farming interests of the country.

You will feel free, we hope, to call on us for any assistance we can give you.

Yours very truly,
Signed A. W. HOPKINS,
Editor.

NORTHERN HARDWARE AND SUPPLY COMPANY

MENOMINEE, MICHIGAN

Our Cloverland warehouses are so situated that we are able to make prompt deliveries on all kinds of General Hardware and Mill Supplies.

Car Wire
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Automobile Accessories

We don't want to sell you anything unless we have what you want and what you need. We believe our stock will cover your requirements.

Write for Prices

Long Distance Telephone 400

MENOMINEE

MICHIGAN

Moth Injury to Stored Wool Improbable

OWNERS of wool held in storage need not fear losses resulting from moth attack before next spring there is no evidence of moth injury at the present time, according to scientists of the United States Department of Agriculture.

Even if a slight evidence of moth appears at this time, it is improbable that the moths will multiply fast enough to cause appreciable injury before the coming cold weather. It requires about two months for the development of one generation of the moth, even during the warmest summer weather, and this period will be considerably lengthened on the approach of cold weather. The moth does no damage at temperatures lower than 60 degrees F., for at these temperatures it remains dormant.

In the southern states, wool is held for two years without giving the slight-

est consideration to the moth. Therefore, wool held in a cold climate would be in much less danger. Cases have been reported to the department in which wool that had been held fifteen years showed no trace of moth.

Every precaution should be taken in storing if the wool is to be held for any length of time. It is suggested that a raised platform be built, that will permit a free circulation of air under the stacks and that will prevent dampness which is a source of danger from moth infestation.

If owners will send samples of their wool, the department will be very glad to examine them and report immediately regarding the condition of the wool from the moth standpoint. Samples of wool sent to the department for this purpose should be addressed: "Chief, Bureau of Markets, Wool Division," and marked plainly, "For examination for moth infestation."

Menominee Saw Co.
Menominee Michigan

MANUFACTURERS OF

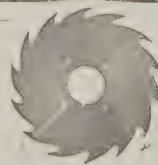
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Mackinac Island

The
Summer Resort
of America



The art work of nature, Indian legend, and panoramic scenes that have made history in time of war and in time of peace all blend in harmonious welcome to tourists entering Cloverland through the southeast gateway, or bid adieu to the traveler after a sojourn at the wonderful Mackinac Island.

The island is justly famed for its scenery. The heights command views of sea and shore, ever changing with the varying lights and shades of the hours and the movements of passing ships. Well kept roads—thirty miles of them—lead in various directions from the village, through the woods, amid curious rock formations, now along the edge of the bluff with vistas of the lake, and again to some open outlook, whence the panorama is bounded only by the limitations of vision. There are glens and ravines innumerable; open spaces which were the ancient gardens of the Indians; and delectable parks, whose clumps of shrubs and trees are so effectively arranged that one at first thought credits the artistic effect to the skill of the landscape artist rather than to the caprice of nature.

WRITE OR WIRE FOR RESERVATIONS

GRAND HOTEL COMPANY
MACKINAC ISLAND, MICH.

LOGAN BALLARD, President CHARLES A. HOLDEN, General Manager



Cheaper Ditching with Less Labor

THROUGHOUT the United States drainage projects are being neglected because of the scarcity of labor willing to dig ditches and the high wages demanded by the few available for such work.

It is recognized that new methods, requiring less labor, are urgently needed. With a view of familiarizing them with a new method that has become quite common in many sections, a demonstration of ditching with dynamite was arranged for the benefit of the 3,000 people attending the Second Annual Cloverland Roundup at Chatham, Mich., in August.

Both the "propagated" and electric methods were shown them. The former is practicable in saturated soil; the latter must be employed in dry soils.

The first test was of a propagated ditch shot. Holes were put down in the wet ground eighteen inches apart and eighteen inches deep. Each hole was loaded with one-third of a pound of 60 per cent straight N. G. dynamite. The middle hole in the row contained a detonator—cap and fuse. Firing this central charge set off the other charged holes down the line both ways from the center. This is the shock or "propagated" method.

It resulted in a ditch five feet wide at the top and three feet deep. It was uniformly V shaped. This ditch cost for explosives less than 7 cents per running foot. Labor cost was very small as work of this kind can be done by one man. Putting down bore holes in soft, wet ground with a pointed steel bar and loading is quickly and easily done and a great deal of ground can be covered in a few hours' time.

The electric shot was merely a prolongation of the propagated ditch. For the electric, the cheapest grade of dynamite—20 per cent ammonia—was used. The holes were spaced the same and the same depth as before,

but each was loaded with a pound of dynamite and each hole contained an electric blasting cap, as well as the stick of dynamite. Charges were connected up in series by means of the cap wires and with a blasting machine.

This ditch was about the same as the other, but was not cleaned quite as well and was rather an U shaped.

In spite of using cheaper dynamite this method cost, for explosives, about 13 cents per running foot, because while the dynamite cost only about 8 cents per foot, the use of an electric blasting cap, costing 7 cents every foot and a half increased the total figure stated. However, it must be remembered that the propagated method will work only in wet, heavy soil, in fairly warm weather. In the experiments either method was practical, but for dry soil, the electric method must be used even if the cost is higher.

Nevertheless, either method solves the labor problem. Both experiments were very successful and there are 3,000 people in the Upper Peninsula of Michigan who now know how to get a ditch when they need it, even if they can't hire more than one man to do the work.

SHEEP ARE VALUABLE

Sheep on every farm is a paying investment, even though buyers are offering a third of the price paid for wool last year. The sheep have done a valuable job of clearing up unimproved farms, the price of mutton on lambs is getting back to where it belongs, and the wool pools will recast the price of wool if the farmer doesn't get excited and take their wool out.

Try camouflaging your cows this hunting season.

RED CROWN Gasoline line is made especially for automobiles. It will deliver all the power your engine is capable of developing. It starts quickly, it accelerates smoothly, it will run your car at the least cost per mile, and it is easily procurable everywhere you go.

Standard Oil Company
(Indiana)
Chicago, Ill.

Northern Minnesota Soils

By FRED D. SHERMAN

HERE is no section in the State of Minnesota and probably no section of its area in the Northwest, where there is such a great variety of soils as is found in Northern Minnesota. The varieties, though numerous, are not the only peculiar thing, but the numerous varieties found in small areas. In almost any county of Northern Minnesota, with the possible exception of the prairie counties of the southwestern part of that section, one can find in each county alone several varieties of soil and each of the same variety may appear several times in the same county. The soil found where maple usually grow, invariably is on a heavy blue clay subsoil and the surface covered with a black loam 2 to 6 inches to 18 inches in depth and usually on top of this black loam may be found several inches of peat, clay leaf mold, this, of course, appearing only upon the raw land. Soil of this character, will, it may be truthfully said, wear forever and the only drawback is that it is somewhat too heavy for diversified farming, but for growing tame hay and small grains, it cannot be beaten.

Another feature favorable to maple is that it never requires drainage,

Norway pine soil in Northern Minnesota will grow clover, though some have experienced difficulty in getting it to catch the first year, but when once one gets Norway pine soil into pasture with a herd of dairy cows or sheep, this land worked in sensible rotation, is of value to the farmer. It is lighter than the white pine soil, but as I have stated before, with proper handling and assisted by the dairy cow or a band of sheep, it can be brought to a high state of fertility.

The lands where jackpine grows, are the lightest to be found anywhere in Northern Minnesota, and by many it is considered almost worthless, yet I have seen jackpine soil converted into productive lands, but this is brought about only after the soil has been carefully treated. If one doubts the possibility of ever making jackpine soil productive, I would advise him to visit the Bemidji Agricultural School plot just west of the city of Bemidji; there one will be able to see where a field of ten acres has been hewed from a jackpine forest and they will see on this field practically all crops grown in Minnesota in a thriving condition. Farmers who have resided in Northern Minnesota for years and have more or less to do with jackpine soil, will testify that many of them have



A Patrick-Duluth Sheep Club Boy with His Land Clearers

the maple grow only on well drained land. The surface is usually rolling and frequently "pot holes" are found on this land. For all-around farming in Northern Minnesota, I am of the opinion, that mixed hard and swamp timber land is the most favorable, as there is usually just enough peat to make it compact and durable and sufficient sand so that when the peat is worked together, it forms a splendid soil for diversified farming. The prevailing timber found on such land is poplar, birch, alder, basswood, tamarack, cedar, balsam, iron wood, elm, oak, maple and scattering pine. The fact that the pine is found on these lands, is an indication that there is considerable warmth in the soil. The contour of these lands varies a great deal, but for the most part, it is quite level land and just enough rolling for good drainage. On some tracts of these lands, stone is found, while other tracts are frequently free from this nuisance, however, the stone is in reasonable quantity is considered by many soil experts, as favorable to the land, indicating warmth of the soil, which is very favorable to farming, especially in the northern climate.

The soil where white pine grows is somewhat lighter than the mixed hard and softwood timber soil, as there is more sand found in this character of soil, but splendid crops can be produced on these lands, because of the warmth afforded by the sand which increases the growth of all crops. These lands are usually very well drained and are suitable for corn, and all kinds of root crops. Norway pine soil is most successfully handled in connection with the dairy cow and sheep. Nearly all of

been successful in bringing this soil into a productive state.

Swamp land soils are the most productive of any found in Northern Minnesota, as most of the swamp land soil is black muck of various depths. In other places we find swamp land soils where considerable peat is mixed with the muck, but all of this land is very fertile. All swamp land, of course, requires drainage and it has been the experience of those who have reclaimed these lands, that before they reach a highly productive state, it requires at least two years of tilling after the land has been reclaimed, to allow them to dry out sufficiently and warm up, so that crops will thrive, but when this stage is reached, no one need fear the ability of swamp land soils to produce any crops grown in the state. Celery and head-lettuce is being successfully grown on swamp land soils, while in fact all crops do splendidly on these reclaimed lands.

I believe that practically every acre of land in the timber region of Northeastern Minnesota, with the possible exception of the very light jackpine soil, can be made into splendid pasture land for sheep and cattle, particularly the former. I believe that cattle grazing for the present, could best be conducted in the more open country of Northwestern Minnesota, where there are less flies and mosquitos to annoy the stock and sheep; they should first be run, for a few years, in the timber and brush land in the northeastern part, for sheep are practically immune from these pests. After sheep have been pastured for a few years on this cut-over timber lands, the underbrush will disappear, together with a great majority of the flies and mosquitos.

*"Bigger
than Weather"*

**The Premier Overcoat
of America**

A COAT that every man needs in his wardrobe. Once worn, we are certain no other coat will quite take the place of this Patrick Product.

The fashionable lines, the excellent tailoring of Patrick Greatcoats, are as distinctive as the famous north country cloth of which they are made.

There is no other cloth just like Patrick cloth. It is essentially a north country fabric, made from the thick long-fibre wool of "sheep that thrive in the snow."

The Patrick label, whether on Greatcoat, Mackinaw, Blanket, Robe, Sweater, Cap or Stocking means that it is made of pure long-fibre wool from northern sheep.

Two books: Our new catalog contains many styles for men, women and children—and true-to-life Patrick colors. "Bigger Than Weather," by Elbert Hubbard. Both are free.

Ask your dealer for Patrick Products. If he does not carry them, we will gladly direct you to one who does.

PATRICK-DULUTH WOOLEN MILLS
No. 1 Avenue A Duluth, Minnesota

Pure Northern Wool from Sheep that thrive in the snow

WISCONSIN LEADS IN CHEESE PRODUCTION

THE importance of Wisconsin as a cheese producing state is emphasized by figures compiled from reports made by factories to the Bureau of Markets. During 1919, Wisconsin led all other states in the production of American types of cheese, also Swiss, Brick, and Munster cheese. The total

production of these types amounted to 257,522,275 pounds. New York and Ohio were former leading in the production of Limburger cheese. Ohio was second in the production of Swiss cheese.

With all things equal, why does one man clear five acres in one season, and another only one acre?



MORE MILK MORE BUTTER



MAKE US PROVE IT

R. 1, Wrenshall, Minn., April 28, 1919.

The J. L. Ross Co.,
Superior, Wisconsin.

Gentlemen:

I had about decided last fall not to feed any mill feed during the winter on account of the high price and results from feeding during previous winters. Finally, I decided to give your No. 11 dairy feed a trial. I began to feed it Dec. 16, 1918, and before Jan. 1st I found the increase in milk was paying for the dairy feed, and am satisfied we received the results you claimed for it. Not only that the cows have given a splendid flow of milk all winter and now are going onto grass in fine shape. Many who have seen the herd have complimented me on the condition of them and ask what I have been feeding, and all I can tell them is hay, bagas, and No. 11 dairy feed. I have recommended it to all my neighbors who had not heard of it.

Yours truly,

JEROME B. GILBERT.

Ask your dealer. If you prefer, write us direct for prices and some further dollar-and-sense facts.

SAVE FREIGHT SAVE TIME SAVE MONEY

THE J. L. ROSS COMPANY SUPERIOR, WISCONSIN

Made In Greater Cloverland

Junior Live Stock Show

IN PROMOTING this show, Wisconsin stockmen are putting into the hands of the boys and girls of the state problems for solution that challenge their ability and add untold resources to their training and skill," said Walter L. Houser, president of the Wisconsin Live Stock Breeders' Association, in speaking of the highly educational value of the Junior Live Stock Exposition which is to be held at Madison, Oct. 18, 1920. "This is the way we interest the youth and show them that agriculture—animal husbandry and all expressions of the soil—is an occupation that dignifies those who follow it."

Mr. Houser and the other members of the committee in charge of the exposition are putting forth every effort to make the coming show a record breaker, not only of well fitted calves, pigs, lambs and colts, but also a show of boys and girls who have studied and trained incessantly to know how to fit and show these animals and who are receiving from the experience great educational value and inspiration.

A number of innovations in the line of recreation and entertainment for the exhibitors have been added to the program this year. Prof. George C. Humphrey, chairman of the entertainment committee, reports that a daily conference for singing, business and announcements will be held every morning at 8:30 and that every exhibitor will be called upon to attend these gatherings regularly. In the program of these meetings will be included short talks by veteran Wisconsin stockmen. In the afternoon, after the judging has been concluded, trips will be made through Wisconsin's magnificent capital, the university buildings and grounds, the United States forest products laboratory and to old historic Camp Randall, where the 'varsity football teams will be in practice. These trips will afford an opportunity for the young people to see what is regarded as America's most beautiful and very best public building, to view the physical plant of one of America's greatest commonwealth institutions, to learn of the work of the United States government in the preservation and utilization of wood and to see close hand, Coaches Richards and Jones, with their squads of pigskin warriors. The schedule of the evening programs will include movies of the various breeds, a stock

sale, as well as fitting demonstration and a big get-together banquet.

The committee in charge of room and boarding is trying to work out plan which will provide feed and quarters for the boys right on the university grounds. Tents that will accommodate twenty-five to thirty boys at a leader will very likely be provided at a very nominal rate per boy. A large mess tent in which all the boys and girls can be fed at one time, and in short order, is also included in the plans of the management.

The judges for the show have been chosen and are expecting some very difficult work in placing many of the classes as the competition promises to be very keen. Dean J. H. Skunne has been asked to distribute awards among the baby beef exhibits; George C. Humphrey, of the university, will assign the ribbons among the dairy calf displays; J. G. Fuller, also of the university staff, has been asked to judge the pigs, and the lambs and colts will be sifted and the winner picked by Frank Kleinheinz and George Hutton, respectively. Baby beeves will be sold at public auction on Thursday night, and the buyers can count on gaining possession of some very excellent specimens of the various breeds.

More than 300 boys and girls have entered a total of nearly 650 calves, lambs, pigs and colts. The exhibitors hail from seventy-five towns in twenty-eight different counties. Approximately eighty-five baby beeves have been entered, 230 dairy calves, seventy lambs, 200 pigs and ten colts. In the arrays of well fitted exhibits at the county and state fairs are an indication, the show rings in the Junior Live Stock Exposition will be well filled with animals in prime condition and every one the pride of some youthful, but coming exhibitor.

"It will be a show of extraordinary merit and will rank high among the major events of the year in the live stock world," says Andrew W. Hopkins, Secretary of the Wisconsin Live Stock Breeders' Association. Visitors from all parts of the state have already signified their intention of attending and it is the wish of the committee that every one interested in junior live stock and junior stockmen and stockwomen will feel that they are cordially invited to view the exhibit.

Most Stock Conditioners Have Little or No Value as Food or Otherwise

EVERY intelligent stockman aims to care for his animals so that they will keep healthy and make the most rapid and profitable gains. This has resulted in a search for and use of "conditioners," "renovators," "tonics," "regulators," "correctors," and "worm killers." Manufacturers have been quick to supply this demand and have widely advertised their particular brands.

"If one relies upon the claims made by unscrupulous manufacturers, he would have no difficulty in finding a panacea or remedy for nearly all diseases," declares Dr. F. B. Hadley, of the veterinary science department of the Wisconsin College of Agriculture. "For example, one much advertised preparation is advised to be used for indigestion, bloat, depraved appetite, impaction, internal parasitism, udder troubles, scours, and various other diseases. As a matter of fact few if any of these concoctions possess the virtues claimed for them."

"Since these products are expensive, have no food value, and have little if any medicinal value, it is certain that the results from their use do not warrant their purchase at any price," says Dr. Hadley. "Although attention has been called to these facts many times, farmers continue to buy stock conditioners at profiteers' prices. Almost every community will be visited this

summer by an agent who has 'dope' of this nature for sale.

"Chemical analysis of several different brands showed them to be composed largely of these ingredients: common salt, baking soda, Glauber's salts, copperas, charcoal, sulphur, ground barbs, screenings, and a small amount of powdered drugs. These are all relatively cheap substances, yet sell for many times their cost when mixed and attractively labeled."

For those who wish to prepare at home a bowel corrective and worm preventive for farm animals, Dr. Hadley suggests this formula: common salt 280 parts, dried iron sulphate (pulverized) 16 parts, powdered wood charcoal 12 parts, flowers of sulphur 8 parts. These materials should be thoroughly ground together and placed in a covered box accessible to the animals at all times. Care must be taken to see that the contents of the box do not become wet with rain, as moisture tends to reduce the value.

Now that the automobile orgy seems to be about over perhaps more labor will be available for the farms next year.

Potatoes may have lots of eyes, but they can't see where the market is going.

"SHEEP MANAGEMENT"

By Prof. Frank Kleinheinz
The Noted Sheep Judge and Expert of the
Wisconsin College of Agriculture, Madison

PROF. Kleinheinz has had thirty years practical experience in handling breeding, feeding and judging sheep. He has judged sheep at the International Live Stock exposition at Chicago, many state fairs and numerous county and district exhibitions. For thirty years he has had charge of the sheep division of the Animal Husbandry Department of Wisconsin Agricultural



College. He is one of the best recognized authorities on sheep in the United States and enjoys a splendid reputation abroad.

THIS splendid book of 320 pages, illustrated with 100 fine plates on—

Sheep
Management
Breeds and
Judging
Price \$1.60

This is a book any farmer now raising sheep, or any farmer contemplating sheep raising SHOULD have.

ADDRESS:

CLOVERLAND MAGAZINE
MENOMINEE MICHIGAN

With Bridges Burned

(Continued from page 14)

himself and was making known his isolation.

Fortunately for Mitchell, Englishmen are not without a sense of humor. The announcement that this young man had come all the way from Chicago, Illinois, U. S. A., to bid on the Krugersdorff work struck Mr. Peebleby as amusing. Not only was it an idea in itself laughable, but also the fact that a mere beardless youth could venture to figure on a contract of such gigantic proportions quite amused the Director General, and in consequence he smiled. Then fearing that his dignity had been jeopardized, he announced politely but firmly that the proposition was dismissed, and that he had no time to discuss it.

"I've come for that job, and I'm going to take it back with me," Mitchell asserted, with equal firmness. "I know more about this class of work than any salesman you have over here, and I'm going to build you the finest cluster of cyanide tanks you ever saw."

"May I ask where you obtained this comprehensive knowledge of tank construction?" Mr. Peebleby inquired, with some curiosity.

"Sure!" Mitchell ran through a list of jobs with which the Director General could not have been unfamiliar. He mentioned work that caused the gentleman to regard him more respectfully. For a time questions and answers shot back and forth between them.

"I tell you, that is my line," Mitchell declared, at length. "I'll read you blueprints you can offer. I'll answer any queries you can formulate, and the accredited representative of the big concern, and I'm entitled to a chance to figure, at least. That courtesy is due me."

"I dare say it is," the other reluctantly agreed. "I'm very busy, but if it is the quickest way to end the discussion I'll give you the prints. I assure you, nevertheless, it is an utter waste of your time and mine." He pushed a button and five minutes later a clerk staggered back into the room with an armful of blueprints at caused Mitchell to gasp.

"The bid must be in Thursday at midnight," Peebleby announced.

"Thursday? Why, good Lord! That's only three days, and there's a drayload of drawings!"

"I told you it was a waste of time. You should have come sooner."

Mitchell ran through the pile and his heart grew sick with dismay. There were drawings of tanks, drawings of substructures and superstructures in every phase of construction—enough of them to daunt a skilled engineer. He realized that he had by no means appreciated the full magnitude of this work, in fact had never figured on a job anything like this. He could see at least a week's hard, constant labor ahead of him—three weeks' work to be done in three days. There was no use trying; the time was too short; it was a physical impossibility to formulate an intelligent proposition in such a short length of time. Then to Mitchell's mind came the picture of a wretched, gold-haired girl clinging to the iron fence of the Pennsylvania depot. He remembered the rolls into his arms.

"At ten-thirty, Thursday," said he. "Ten-thirty, sharp."

"Thank you. I'll have my bid in." His muscles ached and his knees were trembling even before he had reached the street. When he tried to start a bus he was waved away, so he called a cab, piled his blueprints on the seat of it, and then clambered in on top of them. He realized that he was pretty tired.

To this day the sight of a blueprint gives Louis Mitchell a peculiar nausea—a fluttering sensation about the heart. At three o'clock the next morning he felt his way blindly to his bed, dozed off, and then, falling straight into a slumber during which he passed through monotonous, madden-

ing wastes of blue and white, over which ran serpentine rows of figures.

He was up with the dawn and at his desk again, but by four that afternoon he was too dazed, too exhausted to continue. His eyes were playing him tricks, the room was whirling, his hand was shaking until his fingers staggered drunkenly across the sheets of paper. Ground plans, substructures, superstructures, were jumbled into a frightful tangle. He wanted to yell. Instead he flung the drawings about the room, stamped savagely upon them, then rushed down-stairs and devoured a table d'hôte dinner. He washed the meal down with a bottle of red wine, smoked a long cigar, then undressed and went to bed amid the scattered blueprints. He slept like a dead man.

He arose at sun-up, clear-headed, calm. All day he worked like a machine, increasing his speed as the hours flew. He took good care to eat and drink, and, above all, to smoke at regular intervals, but he did not leave his room. By dark he had much of the task behind him; by midnight he began to have hope; toward dawn he saw the end; and when daylight came he collapsed.

He had deciphered the tank and superstructure plans on forty-five sets of blueprints, had formulated a proposition, exclusive of substructure work, basing a price per pound on the American market then ruling, 1 c. b. tide-water, New York. He had the proposition in his pocket when he tapped on the ground-glass door of Mr. Peebleby's office at ten-twenty-nine Thursday morning.

The Director General of the great Robinson-Ray Syndicate was genuinely surprised to learn that the young American had completed a bid in so short a time, then requested him, somewhat absent-mindedly, to leave it on his desk where he could look it over at his leisure.

"Just a moment," said his caller. "I'm going to sit down and talk to you again. How long have you been using cyanide tanks, Mr. Peebleby?"

"Ever since they were adopted." Mr. Peebleby was visibly annoyed at this interruption to his morning's work.

"Well, I can give you a lot of information about them."

The Director General raised his brows haughtily. "Ah! Suggestions, amendments, improvements, no doubt."

"Exactly."

"In all my experiences I never sent out a blueprint which some youthful salesman could not improve upon. Generally the younger the salesman the greater the improvement."

In Mitchell's own parlance he "beat Mr. Peebleby to the punch." "If that's the case, you've got a rotten line of engineers," he frankly announced.

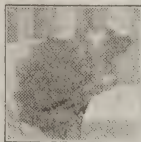
"Indeed! I went over those drawings myself. I flattered myself that they were comprehensive and up-to-date." Mr. Peebleby was annoyed, nevertheless he was visibly interested and curious.

"Well, they're not," the younger man declared, eyeing him boldly. "For instance, you call for cast iron columns in your sub- and superstructures, whereas they're obsolete. We've discarded them. What you save in first cost you eat up, twice over, in freight. Not only that, but their strength is a matter of theory, not of fact. Then, too, in your structural-steel sections your factor of safety is wrongly figured. To get the best results your lower tanks are twenty inches too short and your upper ones nine inches too short. For another thing, you're using a section of beam which is five per cent heavier than your other dimensions call for."

The Director General sat back in his chair, a look of extreme alertness replacing his former expression.

"My word! Is there anything else?" He undertook to speak mockingly, but without complete success.

DOWN IN TEXAS



Fifteen grass-fed, range-raised Shorthorn steers with the phenomenal weight of 1,475 lbs. made the high record weight and price for the year, at Fort Worth, July 16, \$13 per cwt., an average price of \$192.75. These were range-raised Shorthorn, mind you.

At Chicago the same week an Iowa load of Shorthorn yearlings made the high record, selling at \$17.25 per cwt. They averaged 994 lbs. and sold for \$171.40 per head.

Weight and quality both, you understand.

It pays to grow Shorthorns.

American Shorthorn Breeder's Association
13 Dexter Park Ave. Chicago

Fairland Stock Farm

offers Hampshire and Shropshire rams and ram lambs by the carload or singly in crates at just a little above mutton prices; also a few ewes and ewe lambs.

D. J. STAHLY, Proprietor
Middlebury Indiana

"There is. The layout of your plate-work is all wrong—out of line with modern practice. You should have interchangeable parts in every tank. The floor of your lower section should be convex, instead of flat, to get the runoff. You see, sir, this is my line of business."

"Who is your engineer?" inquired the elder man. "I should like to talk to him."

"You're talking to him now. I'm him—it's them. I'm the party! I told you I knew the game."

There was a brief silence, then Mr. Peebleby inquired, "By the way, who helped you figure those prints?"

"Nobody."

"You did that alone, since Monday morning?" The speaker was incredulous.

"I did. I haven't slept much. I'm pretty tired."

There was a new note in Mr. Peebleby's voice when he said: "Jove! I've treated you badly, Mr. Mitchell, but—I wonder if you're too tired to tell my engineers what you told me just now? I should like them to hear you."

"Trot them in." For the first time since leaving this office three days before, Mitchell smiled. He was getting into his stride at last. After all, there seemed to be a chance.

There followed a convention of the draftsmen and engineers of the Robinson-Ray Syndicate before which an

Willow Row Hampshires

Our flock is one of the oldest and largest of this popular breed in Illinois. Only the very best imported and home-bred rams in service. Write for prices on what you want.

R. J. MCKEIGHAN & SON
Yates City, Illinois

OXFORD DOWNS

Yearling Rams and Lambs
Yearling Ewes, Breeding Ewes
of all ages.

Write at once for prices

HIGHLAND STOCK FARM

W. D. MCGILL & SON, Props.

Breeders Pure Holstein, Friesian
Cattle and Oxford Down Sheep.

TEMPLETON WISCONSIN

CITY VIEW FARMS

are offering high-class
Shropshire and Hampshire
Yearling Rams
Also Rambouillet Ram
Lambs

For Prices Write

W. G. MILES

Evansville Wisconsin

Maple Grove Stock Farm

This flock has been bred up carefully for forty years, and representatives of the flock have shown at the fairs since the first importation in 1880.

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Stonington, Ill.

McCartney National Bank

Green Bay, Wis.

Capital and Surplus, \$600,000.00

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Potatoes, Rutabagas
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TO

Platten Produce Co.

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Your Personal Gateway Agents.

Ask us for Map and Reasons Why You Should Use

GREEN BAY, WIS., as Your Market.

XMAS TREES

We Are Now Contracting for Our 1920 Supply—
50 Cars Wanted.

Buying or Selling, GREEN BAY Is Your Best Market.

We Are Your Representatives.

USE OUR SERVICE

unknown American youth delivered an address on "Cyanide Tanks. How to Build Them; Where to Buy Them."

It was the old story of a man who had learned his work thoroughly and who loved it. Mitchell typified the theory of specialization; what he knew, he knew completely, and before he had more than begun his talk these men recognized that fact. When he finished, Mr. Peebleby announced that the bids would not be opened that day.

The American had made his first point. He had gained time in which to handle himself, and the Robinson-Ray people had recognized a new factor in the field. When he was again in the Director General's room, the latter said:

"I think I will have you formulate a new bid along the lines you have laid down."

"Very well."

"You understand, our time is up. Can you have it ready by Saturday, three days from now?"

Mitchell laughed. "It's a ten days' job for two men."

"I know, but we can't wait."

"Then give me until Tuesday; I'm used to a twenty-four-hour shift now. Meanwhile I'd like to leave these figures here for your chief draftsman to examine. Of course they are not to be considered binding."

"Isn't that a bit—er—foolish?" inquired Peebleby? "Aren't you leaving a weapon behind you?"

"Yes, but not the sort of a weapon you suspect," thought Mitchell. "This is a boomerang." Aloud, he answered, lightly: "Oh, that's all right. I know I'm among friends."

When his request was granted he made a mental note, "Step number two!"

Again he filled a cab with drawings, again he went back to the Metropole and to maddening columns of new figures—back to the monotony of tasteless meals served at his elbow.

But there were other things besides his own bid to think of now. Mitchell knew he must find what other firms were bidding on the job, and what prices they had bid. The first promised to require some ingenuity, the second was a Titan's task.

Salesmanship, in its highest development, is an exact science. Given the data he desired, Louis Mitchell felt sure he could read the figures sealed up in those other bids to a nicety, but to get that data required much concentrated effort and much time. Time was what he needed above all things; time to refigure these myriad drawings, time to determine when the other bids had gone in, time to learn trade conditions at the competitive plants, time to sleep. There were not sufficient hours in the day for all these things, so he rigidly economized on the least important, sleep. He laid out a program for himself; by night he worked in his room, by day he cruised for information, at odd moments around the dawn he slept. He began to feel the strain before long. Never physically robust, he began to grow blue and drawn about the nostrils. Frequently his food would not stay down. He was forced to drive his lagging spirits with a lash. To accomplish this he had to think often of his girl-wife. Her letters, written daily, were a great help; they were like some God-given cordial that infused fresh blood into his brain, new strength into

his flagging limbs. Without them he could not have held up.

With certain definite objects in view he made daily trips to Threadneedle Street. Invariably he walked into the general offices unannounced; invariably he made a new friend before he came out. Peebleby seemed to like him; in fact asked his opinion on certain forms of structure and voluntarily granted the young man two days of grace. Two days! They were like oxygen to a dying man.

(To be continued)

Sweet Pea Seed Acreage Is Increased

The total acreage planted to sweet peas for the production of seed this year is estimated by growers and dealers to be about 2,000 acres compared with 1,500 acres in 1919, about 550 acres of which were Spencers and 950 acres Grandifloras, both including mixtures. Because of a decreasing demand for Grandifloras most of the acreage this year is of the Spencer type. A portion of the crop in California was a failure because of lack of moisture during the winter and spring months and the prevalence of aphids during the summer.

Co-operation among the farmers has proven exceptionally profitable.

We have over 20,000 members, who are co-operating in Saving. Today we have over \$6,880,000.00 making profits for them.

The largest Building and Loan Association in Michigan.

We have to offer to members at this time our prepaid dividend stock on which we send check for interest at the rate of five per cent every three months. The dividend comes regularly—no fuss or bother.

Any time you want any part or the whole of your money—it can be withdrawn.

Send in your check NOW and receive your Dividend, October 1st.

\$80.50—a share pays \$1.00 quarterly.

\$805.00—10 shares pays \$10.00 quarterly.

\$8050.00—100 shares pays \$100 quarterly.

**Detroit & Northern Michigan
Building & Loan Association**

HANCOCK, MICH.

Under State Supervision

Authorized Capital, \$50,000,000.00

OUR Certificates of Deposit afford a convenient and secure manner of investing any desired amount—with the principal always available.

CITY NATIONAL BANK
of Duluth

A LITTLE WAYFARER

By ANTOINETTE B. HUNTINGTON

Wausau, Wisconsin

JUST at sunrise one beautiful, clear morning in July, three years ago, there came through the open windows a bird song we had never heard before. It was a deep whistle with a sharply rising inflection "gee! gee! gee!" Perhaps it was a little grating as it continued, but there was a haunting call about the song that made one want to hear it again.

After a few minutes it stopped. The vrens, catbirds, martins, finches and he oriole went on with their morning songs, but the stranger did not sing again.

After breakfast while in the garden a little twitter attracted my attention to the plum tree. At first I could not see any sign of a bird, but after looking carefully and being very quiet, I saw on a branch near the top of the tree a little blue and gray bird that seemed to be trying to keep out of sight by hiding behind the leaves. It did not seem able to fly—just hopped from twig to twig. I wondered if it could be the stranger we heard at sunrise.

The branches of the plum tree spread out to a high wire fence. About fifteen feet from the fence is a bird's bath, always kept filled with fresh, clean water. Every morning catbirds, robins, gold finches, purple finches and the different sparrows come to bathe. The birds have become very much at home in our yard and we see many interesting sights.

The second morning we heard the low song again, and we were sure it came from the plum tree. About the middle of the morning, the maid, who was very much interested in birds, called me to come and see a new bird in the bath. There was the little blue and gray bird from the plum tree. One wing was evidently broken and it seemed to be useless. We waited quietly to see what would happen.

After bathing several minutes the little fellow hopped across the grass to the wire fence, and up he went, making his way from one wire to another until he reached a branch of the plum tree. Then on up the branches he went until he was near the top.

The bird book showed the little

stranger to be a very fine specimen of a male black throated blue warbler.

For two weeks every day about the middle of the forenoon when the other birds were through bathing and again late in the afternoon, the little cripple came to the bath and returned by the same route to his favorite top branch of the plum tree. We tried never to frighten him while in the water, or going to and from his perch in the tree top. Gradually he came to know us and was not afraid.

Slowly the broken wing began to mend and he could fly along the ground from the bath to the fence, but he still climbed the wires to the first branch of the tree.

Every morning he sang at sunrise, and sometimes later, between 6 and 7 o'clock we would hear the call but never through the day. One morning during the third week I heard him singing in the box elder tree on the other side of the yard. The next morning there was no song and he did not come to the bath. We kept watch but no warbler came, nor was he in the tree. The third day I heard the song in the middle of the morning from the box elder tree. It was evidently his good-bye, for he did not sing again and we saw him no more. The wing was well again and he had gone to join his family and friends.

One morning the next summer about mid-August, out of a clear hot sky came the call of our little warbler. No two birds sing alike. I knew this was our little friend returned to see the place where he stayed the year before. He spent the day in the box elder tree but did not use the bath. Then he was gone and we never heard him again.

The notes of the warbler's song are very peculiar and will attract your attention anywhere. Once having learned to know the song you will not forget it.

This warbler had not forgotten the place where he spent those weeks in the old spreading plum tree near the cool, fresh bath in our secluded back yard, and returned to sing for us a bit that hot morning in August, a year after his first visit.

Turning Stump Roots to the Sun

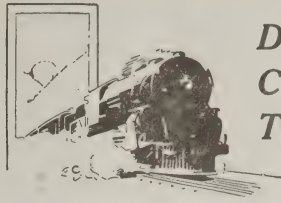
SIX hundred and sixty Marathon county farmers will this fall turn stump roots to the sun with government TNT. Of the 500,000 pounds given to Wisconsin for land clearing purposes, 33,000 pounds were allotted to Marathon county. The distribution was effected through the office of County Agent Swoboda, each town chairman taking charge of his town. Planks were supplied by the county agent. Farmers were advised to get a touch with their chairmen. That they did their work effectively is proven by the fact that thirty-eight of the forty-one towns of the county came in for a part or all of their allotment. The surplus was given to the more newly settled towns. At prevailing local prices of dynamite the TNT meant a direct cash saving of \$6,000 to the farmers of the county.

Three to four times the amount allotted could easily have been distributed.

Five one-day land clearing schools were held in Marathon county in September under the auspices of County Agent Swoboda, and the department of land clearing, College of Agriculture. Best methods of using dynamite and TNT, the blasting machine, stone and ditch blasting, were demonstrated by John Swenhardt, in charge, and his assistants.

Schools were held at Gladon, Sept. 21; Plover, Sept. 22; Galloway, Sept. 23; Knowlton, Sept. 24, and Green Valley, Sept. 25.

The farmers worked right with the instructors, and a stump blowing contest was staged at each school, cash prizes amounting to \$10 being awarded at each place.



During
Crop-Moving
Time—

And all other times—Cloverland bankers seeking to establish business contacts outside of their immediate vicinity should direct their inquiries to a bank with facilities for handling all classes of business. This bank occupies a pre-eminent position in the upper Middle Western and Central States and has direct connections with the leading markets throughout the country.

Inquiries are invited

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NATIONAL BANK
Milwaukee**

There's No Such Person

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You would pick him out as the ideal executor of your estate. Of course, there's no such person.

But There's an Organization

that measures up to every one of these qualifications—that absolutely fills the bill.

And that organization is this institution.

*The Superior
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OF DULUTH, MINNESOTA

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First National Bank of Calumet

Calumet, Michigan

Capital \$200,000.00

CALL IN AND SEE US
We are always pleased to serve you

Officers: John D. Cuddihy, Pres.; Edward Uleth, Vice Pres.; Edward F. Cuddihy, Cashier; Daniel C. Harrington, Asst. Cashier; Pierce Roberts, Asst. Cashier

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\$150,000.00

Oldest Bank in
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ESCANABA

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The leading bank in that city is the

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Correspondence invited

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Ewen, Michigan

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First National Bank of Iron River

Iron River, Michigan

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We invite letters of inquiry
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Marquette, Michigan

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Marquette, Michigan

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We invite correspondence

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First National Bank of Menominee

Menominee, Michigan

Resources Over \$2,000,000.00

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Depository for United States and State of Michigan

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Officers: Warren S. Carpenter, Pres.; Wm. Wehl Harmon, Cashier

Commercial Bank of Menominee

Menominee, Michigan

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United States Depository
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Newberry, Michigan

Capital, \$30,000.00

Surplus, \$6,000.00

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3% Interest paid on Savings Deposits

Officers and Directors: F. P. Bohn, Pres.; W. G. Fritz, Vice Pres.; L. H. Peck, Vice Pres.; E. M. Chamberlain, Cashier; E. L. Fritz, Andrew Weston, J. C. Foster, Matt Sirell

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Sault Ste. Marie, Michigan

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Correspondence invited
Officers: R. G. Ferguson, Pres.; Otto Fowler, Vice Pres.; Chas. S. Osborn, Vice Pres.; E. H. Mead, Vice Pres.; Fred S. Case, Vice Pres. and Cashier

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Marquette, Michigan

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Functions of a Trust Company and Its Relations to the Public

By J. C. JEFFERY

Secretary, Superior Trust Company, Hancock, Michigan

"NO man liveth to himself," is a statement so old that many of us accept it as a plain fact, but fail to apply it to the working problems of our own lives.

The thrifty, energetic people who make up the population of Cloverland have set themselves a goal toward which they work, the goal of making our communities bigger, better places in which to live.

No individual man can accomplish this, but collectively men may create civilization of the highest type.

Among the institutions which work for the betterment of Cloverland, by offering to its people a service which directly and indirectly makes for better citizenship, may be found the only trust company within its borders, The Superior Trust Company of Hancock, organized in 1902 and having among its officers and directors members of some of the pioneer families of the Copper Country.

The man of moderate means may say: "What have I to do with trust companies or they to do with me, only rich men with large estates have use for a trust company." It is true, the man whose wealth tends to complicate his affairs has been in times past the only one who thought of intrusting his affairs to the care of a trust company, partly because he alone has felt the need of one, but may it not be largely due to the fact that only a meager idea of the functions of such a company has been in our possession? Let us, therefore, turn our thoughts toward the human side of things which play so large a part in the relation which may exist between a trust company and an individual or family group.

Four of the best known functions of a trust company may give sufficient food for thought.

The Superior Trust company serves as executor of wills, administrator of estates, trustee under wills and guardian of minors, mentally incompetents and others who cannot act for themselves.

The day is passing in which a man who has gathered about him even a small property does not see the wisdom of making a will and as time goes on, he will become convinced that the only safe, sure executor of that will is a trust company whose directorate is always kept at par.

But, you say: "I expect to leave everything I have to my wife and family; why should I appoint a trust company as executor of my will and just what is the difference between an executor and an administrator anyway?"

The very vague idea which most of us have in regard to the use of legal terms is sufficient reason at the outset why a will should be drawn by legal talent and executed by a trust company which has at its command at all times the best legal advice.

Should a man make a will committing the execution of that will to some one person or company that person or company becomes, at his death, his executor.

Should he die without making a will, or appointing an executor if he has made one, the Probate court authorizes some person to manage and distribute the estate and that person is known as the administrator.

Have you never watched a mother build with great care and precision a house of blocks for her baby only to have him at its completion put out his little hand and in an instant demolish her patient work of an hour?

In precisely the same relation is the man or woman who intrusts the accumulation of a life-time to some one who does not understand its administration, and, because of that ignor-

ance, may unintentionally throw away what they have so laboriously built up for the protection of their loved ones.

A man may appoint his wife, a son, or an old-time friend as his executor but they, like himself, are only human and may die before being able to carry out his wishes.

It is true, trust company officers die also but their places are immediately filled by carefully selected men who have been associated with business affairs for years and can more readily take up the duties than the individual who has had no business experience.

Many men, either because they wish to save their wives from worry, or because they believe the women of their family know nothing about business anyway, leave them in entire ignorance of their business affairs and as result, the settlement of an estate becomes more complicated than it might

The First National Bank of DULUTH

At the Center of Cloverland

CAPITAL, SURPLUS
and PROFITS

\$3,250,000

THE development and progress of Northeastern Minnesota has for 38 years been the interest of this bank. In the future of this community and in the success of its people we have a vital concern

Talk your problems over
with us or consult
us by mail.

W. P. WAGNER, Pres. H. S. ELDRED, V-P
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Capital and Surplus \$500,000.00

GREEN BAY, WISCONSIN

First National Bank of Iron Mountain

Iron Mountain, Michigan

Resources Over \$1,600,000

Officers:
E. F. Brown, President; J. C. Kimberley, Vice-President; W. J. Cudlip, Second Vice-President; F. J. Oliver, Cashier; Leo H. Mortensen, Assistant Cashier; J. W. Franson, Assistant Cashier.

Directors:
E. F. Brown, J. C. Kimberley, W. H. Seandling, A. Bjorkman, W. J. Cudlip, R. W. Pierce, Jr., R. C. Browning, G. O. Fugere.

have been had they taken them into their confidence.

The proper performance of an executor's duties calls for familiarity with probate practices, for a knowledge of real estate and securities, for systematic records and a safe place to keep them—all this a trust company makes, it a business to furnish its clients.

There are many points to consider in making a will; for instance, capital and income are vastly different things. When men and women fail to distinguish between them, trouble arises.

Some people may be safely trusted with the proper use of capital and there are others to whom an income should be left.

Your son or daughter, if they have had experience or possess good business judgment may put capital to proper use; should they lack stability or good management they might soon lose an estate.

Every man must judge for himself whether he wishes to leave capital to his family or the income which capital, rightly invested, will produce.

Capital placed in the hands of a trust company has the advantage of experience which gives an intimate knowledge of investment values, is managed on business principles and not governed by sentiment.

Placed in trust for the person you wish to benefit, it may be invested and the income which it produces provide comfortable living for the recipient.

Let us suppose, for instance, that two farmers possessed of equally valuable lands and similar personal property wish to provide for their families after their death.

For convenience we call them Mr. Right and Mr. Rong. In Right's family there is a wife and three sons; the wife is possessed of some ability but is governed in her judgment by her eldest son who is of a grasping, aggressive disposition. One of the sons is inclined to be a spendthrift and the third son is blind.

The father makes a will in which he provides for his wife in the usual manner prescribed by law.

A certain portion of the estate is given outright to the eldest son and the second son receives a certain sum of money, the balance of his share of the estate to be paid him at periods of five years each.

The blind son is provided for by creating a trust, the income from which is to be paid him monthly.

For the benefit of the little community near which they live, he leaves the income from certain lands, which income is to be divided semi-annually between the church and small library which the village tries to maintain.

He names the Superior Trust Company as his executor, thus relieving his wife of all responsibility and protecting her from any undo influence which the eldest son might have brought to bear upon her in the settlement of their affairs; at the same time leaving his son free to act for himself as to his portion of the estate.

The spendthrift son is protected against himself by having the trust company handle and invest his funds, paying it out to him at stated periods as he grows older and possibly wiser.

The blind son is safe from all schemes which either of his brothers might have worked against him and is made comfortable and happy because he has no worry in regard to his share of the estate.

The community is benefited by having the property kept in repair and in having four happy and contented people remain in the locality beside enjoying the bequest left to the church and library.

Now, in the meantime, what has happened in Mr. Rong's family?

His wife has long since died and he has three daughters and one son remaining at home. One of the daughters is mentally deficient.

The son and eldest daughter are made executors of his will and when he passes away, they attempt to settle up his estate. Neither of them has much knowledge of business affairs but the son attempts to run the farm.

Because of his inexperience he makes some bad investments and the crops not being attended to in a systematic way prove a failure and it becomes necessary to mortgage the farm.

The second daughter, angered because her share of the estate has been tied up and is fast dwindling away, leaves the farm and seeks work in the city.

The care of the home and mentally deficient sister becoming too much for the oldest daughter to handle, the girl is placed in an infirmary.

Things go from bad to worse till the mortgage is foreclosed and the girl at the infirmary becomes a county charge, while the son and daughter seek homes for themselves elsewhere.

Thus a good farm is allowed to degenerate, the community loses three inhabitants who might have made good citizens if properly safeguarded, and the county is put to the expense of caring for the mentally deficient daughter.

"Unusual cases," you say—not at all, these or like cases may be found in any community, and it is here the trust company may function for the benefit and betterment of all concerned.

Property may be left in the care of a trust company which acts as an agent, rentals are collected, taxes paid, loans made with proper security and trusts in general are executed.

The books of a trust company are audited and examined periodically by the state banking department and the affairs of all to whom the trust company renders service are managed in a business-like manner, whereas the individual executor may render irregular reports and his accounts be incorrect.

Being a corporation, a trust company's existence is permanent, the advantage being one policy controls always in the administration of an estate.

The individual executor may die at an unexpected or inopportune time and his successor may have entirely different ideas as to how the property should be managed, and will know little or nothing of the investments as he finds them.

Thus we see that the trust company may become a public servant which, for the same expense to the persons involved, may safeguard the individual or family group and, as we stated in the beginning: "No man liveth to himself," what is good for the individual becomes the common good of all."

England now has women naval architects.

STATEMENT of CONDITION

SEPTEMBER 8, 1920

RESOURCES

Loans and Discounts	\$52,553,150.37
U. S. and Other Bonds	2,953,293.25
Stock in Federal Reserve Bank of Minneapolis	180,000.00
Banking House	549,000.00
New Banking House Site	600,000.00
Customers' Liability on Letters of Credit and Acceptances	4,567,234.27
Interest Earned But Not Collected	133,179.07
Overdrafts	13,398.48
Redemption Fund and Due from U. S. Treasurer	120,815.00
Cash and Due from Banks	16,768,946.09
	\$78,439,016.53

LIABILITIES

Capital	\$ 4,000,000.00
Surplus	2,000,000.00
Undivided Profits	1,422,647.33
Interest Collected But Not Earned	385,688.72
Reserved for Taxes	250,900.25
Circulation	290,000.00
Letters of Credit and Acceptances	4,567,234.27
Bills Payable at Federal Reserve Bank	374,000.00
Rediscounts at Federal Reserve Bank	13,160,508.31
Deposits	51,988,037.65
	\$78,439,016.53

NORTHWESTERN NATIONAL BANK

MINNEAPOLIS, MINNESOTA

Bank by Mail

WHEN it is inconvenient for you to come to town you need not worry about transacting your banking business. The First National Bank is as near your door as the telephone or mail box. A telephone call or a letter to this bank will receive prompt and careful attention. You will find it helpful at all times to make use of this service.

Saving adds 100% to the satisfaction of spending. The saver is a wise spender—gets his money's worth.

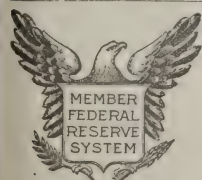
Special attention given and facilities offered to out-of-town patrons.

First National Bank

MARQUETTE, MICHIGAN

DESIGNATED UNITED STATES DEPOSITORY

Capital, Surplus and Undivided Profits In Excess of \$300,000



SAULT SAVINGS BANK

"THE BANK FOR YOU"

SAULT STE. MARIE, MICH.

CATTLE and Sheep Men locating in this vicinity will find us both able and willing to assist them.



The Mystic Night of Spooks and Parties

By GRACE SAVEE



HALLOWE'EN, the night of mystery and pranks, the one night of the year when spirits of the dead wander about, together with witches, devils, mischief making elves, sprightly little fairies, gnomes, and in some cases the spirits of living persons have the temporary power to leave their bodies and frolic with the ghostly parade, all combine to make the evening of the last day of October a most delightful event and afford untold opportunities for entertaining.

The origin of Hallowe'en seems to be a matter of guesswork, having for its foundation a classic mythology, Druidic beliefs, and Christian superstitions. The first day of November or thereabouts has been observed as a great autumn festival, a celebration over the harvest of grains, fruits and nuts, for centuries. Practically all European countries observed the occasion with some formality—some with feasting on nuts and fruit, others with gorgeous banquets, but running through all festivities there was always present the spectacular, the mystic, the supernatural. Huge bonfires and parades with flaming torches characterized some of the celebrations, and weird legends were woven from the ash heaps, while omens, good and bad, permeated the very air. There was a certain degree of solemnity intermingled with frolic and feasting, the program was as versatile as the notions of the spooks.

The observance of Hallowe'en in America seems to have been first characterized by pranks and spook parades and then it drifted into veritable rowdism. In recent years the rowdism has gradually disappeared, and entertainments, spook parades, masquerades have taken its place, and house decorations typical of the spirit of the evening are now recognized as positively essential. Indeed, Hallowe'en has become perhaps the most popular evening of the year for entertaining, because it offers such a world of diversion, such wonderful opportunities for novelties and decorations, such a galaxy of mirth and fun, such an excellent chance to tax originality in en-

tertaining. And the patron saint of Hallowe'en is "Saint Matrimony."

There are a hundred ways to entertain on Hallowe'en, but remember there are to be no electric lights. Flickering candles, fortune telling and weird ghosts feature the evening. The electric lights may be covered with colored paper, thus casting a dim light on the scene.

At a Hallowe'en party for children it is safe to have candles made from stick candy. Decorate the dining room with candles made from large sticks of candy wrapped in red paper so that the end of the paper resembles the wick. The tiny tots will be delighted when they find out their candles can be eaten. Large red apples can be carved into tiny jack-o'-lanterns and lighted with birthday-cake candles. The walls and table linen can be decorated with black witches, cats and pumpkin faces, cut from black paper. Candle holders can be cut from colored paper and decorated appropriately.

The following games create a lot of fun for both the kiddies and grown-ups.

Hide a ring, thimble and penny in the room. To the one who finds the ring speedy marriage is assured; the thimble denotes a life of single blessedness and the penny promises wealth.

Float a half walnut shell with tiny sail made of a tooth pick and a slip of paper in a tub of water. On the paper each one writes his initials and another's, but telling no one the name. The boats are all launched at the same time and the water agitated to make it wavy. Those whose boats are overturned will not win their lovers and sweethearts, but the owners of the boats that ride the waves will get their hearts' desires.

At one end of a stick eighteen inches long fasten an apple. At the other end fasten a short piece of lighted candle. Suspend the stick from the ceiling by a stout cord fastened in the middle of the stick so that it will balance horizontally. While the stick revolves the players try to catch the apple with their teeth. A prize is placed in the center of the apple.

One of the most hilarious scenes is to place a dozen or so apples in a tub filled with water, and have the guests, old or young, take turns biting at the apples. The player biting the greatest number of apples receives a prize.

Another form of this game is to cut initials in the apples and each player draws two apples. The initials on

these apples are supposed to represent the initials of their future mate's name.

A raisin is strung in the middle of a piece of thread a yard long. Two persons each take an end of the thread in their mouth, and whichever reaches the raisin first by chewing the thread will be first wedded.

Suspend a barrel hoop horizontally from the ceiling on which are fastened at regular intervals apples, candies, cakes and candle-ends. The players gather in a circle and as the hoop revolves each tries to bite one of the edibles. The one who seizes the candle pays forfeit.

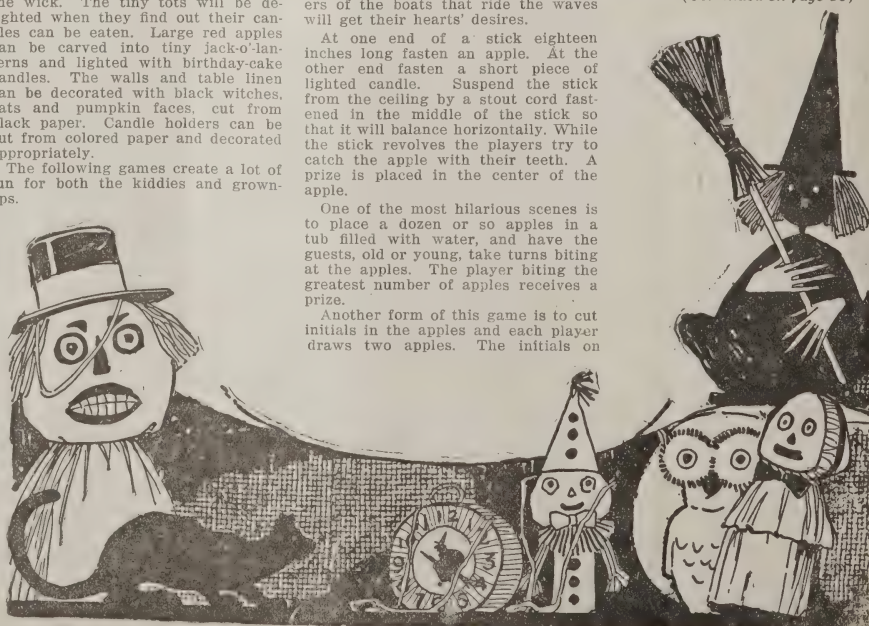
Tie a wedding ring or key to a silk thread or horse hair and hold it suspended within a glass. Then say the alphabet slowly. Whenever the ring strikes the glass begin over again and in this way spell the name of future mate.

A clever way of securing luncheon partners is to cut open English walnuts and remove the meat. Place inside one bean, pea, raisin or some other similar thing, and tie the two half shells together with ribbon. Make the contents of two walnuts just alike and keep the walnuts apart, placing one in one dish and the other in another dish. When luncheon time comes pass one dish to the men and the other dish to the women, and the man and woman whose walnuts have similar contents are supper partners.

There are so many different ways of entertaining for Hallowe'en that one is at a loss which party to choose, but one of the very best I ever heard of was an evening spent at a phantom party where spooks held sway. This is the way it was described:

"The invitations that were sent out were cut in the shape of a ghost from white cardboard and on the back was written:

(Continued on page 30)



New Lingerie and Robes



fastened with ribbons or held in place by a soft belt. Messaline ribbon or velvet makes a very pretty belt, while a soft white kid belt is appropriate. Little sacques made of taffeta silk in delicate shades, trimmed with fascinating little pinked quillings of taffeta are very pretty when worn with a pink or white taffeta princess slip. This sacque may be held to the figure by a belt of same material or one of the above mentioned belts.

Fine batiste, muslin or linen make dainty undergarments, and these are usually trimmed with Val lace and a touch of hand embroidery in the more delicate shades, such as lavender, pink, blue or peach color. The simpler the undergarment the more attractive it is.

Princess slips made on straight lines and drawn upon a casing, like the one illustrated, are very practical for general wear. The chemise as illustrated, having the straight edge, permits the use of lace or embroidered flouncing. The step-in garment is easily made and does away with the bother of fasteners of any kind. As for trimming, either tucking or a dainty spray of French knots is very pretty, combined with a lace edge.

BEAUTIFUL lingerie is the hope and dream of every girl and woman. One can go and have a feeling of comfort when she possesses these pretty undergarments, for she is well dressed.

Most any girl can own these much-coveted things by exerting a little patience and thought in selecting materials and making them up herself. Silk and satin, of course, are the loveliest materials imaginable for envelope chemises, pajamas, princess slips and lounging robes.

Inserts of georgette crepe, lace and chiffon are dainty trimmings. These combined with satin make beautiful camisoles and chemises. For a touch of color add a little embroidery in contrasting colors or rosebuds, which are easily made of bits of left-over chiffon or ribbon. This gives a soft, delicate touch to the garment. Rosebuds made of chiffon or ribbon which has lost its color may be daintily tinted with water colors.

Silk mull is not as expensive as the satin or crepe de chine, but is just as attractive. The pastel shades of mull make excellent summer lounging robes and pajamas, while for cooler days the eiderdown robe trimmed with bands of taffeta, satin or fur will protect one from cold draughts.

Always practical and always popular is the large figured kimono, which is closely related to the coat dress for morning wear. The skirt of this may be of satin, crepe or cotton, quite plainly cut. One who is fortunate enough to possess a satin or taffeta princess slip may use same as skirt. The jacket is made on box lines of either the same material or a flowered design. The front of the jacket is either lapped and

lounging robes are extremely useful and no girl or woman should be without one. These robes may be long or short, in jacket or dress form, but must always be dainty and restful. Velvet corduroy in rose or copenhagen blue combined with satin ribbon makes a very pretty robe, while the more sheer robes are beautiful when made of albatross, satin or crepe de chine. These latter are prettily trimmed with quillings of the same material or when braided with soutache. The blanket robes are also very desirable and are much more inexpensive than the above described robes. They require very little trimming besides the necessary waist cord and frog fasteners.

The corset of today that is being worn is low of bust, broad of waist and in many cases front laced. Our modern idea today of the corset is something that will soften and hold the lines of the figure but still loose enough to allow one to retain a natural poise and to improve the contour of the figure as well as providing comfort. Much care should be exercised in selecting one's corset, and the young girl who desires to be corseted with ease and to mould her figure properly will find that her particular needs have to be carefully met by scientific methods. Many stout women prefer the back lace, while the more slender woman prefers the front lace corset. The corset of elastic with coutil front is very suitable for medium figures.

If the figure has a large bust, a brassier is worn and the bust held in. The brassier must be at least two sizes smaller than the bust measure to accomplish this. The present fashion decrees the long under line to the figure.



Lauerman Brothers Department Store, Marinette, Wis.

Modern Business Service

WE want Cloverland grazers and farmers to look at this store in that way. We are here to serve you carefully, courteously and whole-heartedly.



The Marinette Store
Whose Perfect Service by Mail
Reaches Your Very Door

You can purchase by mail just as satisfactorily as if you were in Lauerman's Store in Marinette, doing your buying personally. Your goods are shipped same day order is received.

YOU CAN SAVE TIME, FREIGHT
AND MONEY BY SENDING IN
YOUR MAIL ORDERS TO US.

It will be of great benefit to you to have your name on our mail-order list and receive price lists and quotations on whatever you need.



The cost
is small
The benefit
is great

Those who feel
ill results from tea or
coffee drinking soon
profit by a change to

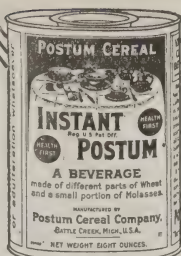
INSTANT POSTUM

Its pleasing flavor, ease of
preparation, healthfulness
and practical economy com-
mend this table beverage.

Sold in 50 and 100 cup tins.
A purchase from your grocer
soon proves

"There's a Reason"

Made by Postum Cereal Co., Inc., Battle Creek, Mich.



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The Standard of Excellence in Greater
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Follow the Sign of the Rose

ROACH & SEEBER CO.

Wholesale Grocers

CALUMET, MICH. MARQUETTE, MICH. HOUGHTON, MICH.
IRONWOOD, MICH. WATERLOO, WIS.



(Continued from page 28)

Spooks will walk,
Spooks will talk,

All on Hallowe'en.
So come and ask them questions,
And learn your fate to be,
Just be a spook for one night
And share the jollity.

"All came dressed as ghosts,
witches or goblins and we were met
at the front door by a huge white
ghost with fiery eyes and a large wand
in hand.

"Ghosts were seen moving around
the yard here and there and jack-o'-
lanterns made from large pumpkins
shed the only light on the scene.

"Just inside we were welcomed by
the host and hostess, also dressed as
ghosts, and around on the wall were
huge black cats cut
from paper, which
made the room look
very weird.



"No one spoke a
word, but we were
welcomed in panto-
mine, and someone
pinned a name on
our backs and sent
us to a large living
room. Here a fire
was burning in a fire-
place and ghosts
were sitting on cush-
ions or walking
about looking into
each other's faces.
On a table were a
number of black
cards with tiny
ghosts and cats pasted
around the edges
as borders, and little
white pencils attached.
On these cards
were names of famous
people—George
Washington, Queen
Elizabeth, Capt. John
Smith, etc., corre-
sponding with the
names pinned on the

backs of the ghosts. We were to guess
as best we could the person hidden un-
der the ghost garb and place the real
name underneath the name pinned to
his back.

"After a few moments the usual
prize was offered to the ghost who
had succeeded in guessing correctly
the most names, a tiny box covered
with black cats and witches filled with
candy.

"Now the guests were asked to find
their partners for the evening who
would share their fortune for the
hours to come. A line was strung
across the room onto which tiny white
cardboard ghosts were pinned, each
with a name on the back, using the
same names as those chosen for the
men. The girls were blindfolded and
asked to pick a ghost from the line.
They still had their names pinned on
their backs. In this way the partners
were well mixed.

"Little black paper books were
given to each couple, two pages to a
book, on which were printed words in
white ink with spaces to fill in as each
fortune was told.

"Three bowls were set upon a table
and in one there were beans,
in another corn and in another
small pebbles. Each guest
was blindfolded and asked to
put his hand in one of the
bowls. If he placed it in the
beans he would make just
enough money to live on, if in
the corn he would have
wealth, but if in the pebbles
he would have to scratch for
a living.

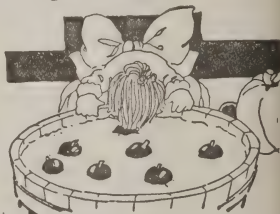
"The number of children
each was to have was told
with the use of beans. Each
guest was given a silver knife
and twelve beans and told to
walk across a room and place
the beans in another bowl.
The number of beans left de-

noted the number of children they
would have.

"To tell the age to which the guests
would live a large circle with an ar-
row in the center and single numbers
around the edge was used. Each
whirled in turn, first a boy and then
the girl, and the two numbers put to-
gether telling the age.

"In order to know how one's future
partner would look small envelopes
were hidden about the rooms in which
two colored paper dolls were hidden—
one a girl and one a boy. These had
been cut from magazines and colored
with crayons. This made no end of
fun.

"There were many games played
during the evening, all very appropri-
ate for Hallowe'en, the witches danced
and told fortunes in their huts of corn
stalks, and then the spooks all started
in a single file to follow the hostess.
We were led out into the yard and into
a darkened shed where we felt
squashy soft things under our feet.
Then a horn sounded in the darkness,
and an icy wind blew across our face
and long white arms with icy hands



touched our cheeks. We were led
from the barn to the house and still
these things followed us amidst
shrieks and yells from all.

"As we were all pretty well tired
after this our hostess announced re-
freshments.

"Armed with candles and lights
dimmed we marched slowly and in
single file to the dining room, while a
Victrola ground out a most appropri-
ate funeral march. We were served
sandwiches, pumpkin pie, popcorn,
marguerites, apples, popcorn and nut
bars and sweet cider to drink. A
shingle was used for a tray and paper
plates instead of the ordinary china
plates, with paper napkins with black
cats and ghosts pictured on them.
These all added to the fun of the eve-
ning and we all left saying it was the
best Hallowe'en party we had ever
had."

Following are some excellent and
appropriate dishes for the luncheon:

A most attractive Hallowe'en salad
is made by scooping out the centers of
large green or red apples and carving
jack-o'-lantern faces on the side. Mix
one-fourth cup of chopped raisins, one-
fourth cup chopped nuts, two table-
spoons of grape jelly and one small
cream cheese. Add the chopped apple
removed from the center, and any de-
sired salad dressing and serve on any
green leaf.

A black-ghost salad is made by



stewing large prunes until plump but not too soft. Remove the pits and fill with cream cheese. Arrange these on plates in the form of men or animals, holding the parts together with tooth-



The Ten Principal Stitches in Sewing

Lesson II for Little Girls,

ARE you ready, mother, to help now?" asked the little girl. "I have my needle all ready from the last lesson."

"Oh! But such a long thread," said mother. "Supposing right here we learn to measure our thread. Take the end of the thread in the right hand and the spool in the left. Extend the right arm straight out and with the left hand measure the thread from the right hand to the chin. This is the length of thread to be used in threading the needle."

"Now, let us take a skein of pretty blue D. M. C. cotton. Clip it open at both ends and we have all the thread we need and all of them the same length."

"Let us find the piece of canvas that we put in the sewing basket and now we are ready to begin. We use the canvas for beginners as the thread is drawn back and forth through the loose weave much easier and gives you a chance to see the stitches."

"Put the needle through a hole in the canvas, point downward, pushing the needle toward the left under two threads of the canvas, and then pull the needle through. Now, we will do this again: Over two threads, under two threads, pull through. Finish the row across. Fasten the thread by taking two stitches over each other in the same holes at the end. Then cut off the thread."

"We call this even basting because the stitches are of the same length, and we leave the knot and the thread on the right side because even basting is used only to hold the material in place until it is sewed. In this way the threads may be easily pulled out after the material is sewed."

"The second stitch is uneven basting. We commence as in even basting. Point the needle downward and bring it up through the next hole. That is, under one thread, over three, and so on to the end of the rows. Finish as in even basting."

This stitch is sometimes used more than even basting, so we must know how to do both.

"Our third stitch is called the running stitch. From the under side of the canvas point the needle upward, bringing the knot on the wrong side. Then point the needle downward through the next hole and pull through. Repeat this, until the row is finished, by taking several in-and-out stitches on the needle and then pulling through. Then turn to the wrong side of the canvas and fasten the thread by taking three stitches in the same hole. This is the in-and-out-the-windows stitch."

"We have now discovered that the thimble must be placed on the third finger, as it hurts to push the needle through without it."

"Our next stitch is back stitching. Enter the needle into the canvas just as in the running stitch. Take one running stitch, bringing the needle out on the right side. Point the needle downward through the hole to the right of the one where the cotton

picks. Pieces of nuts may be used for the features.

In making sandwiches cut a face in the upper slice of bread, using pimento for the mouth and nose and olives for the eyes. These are very attractive.

The following menus are very suitable for children and adults:

Olive and nut sandwiches. Cider or cocoa
Fancy baked apples.
Peanut butter sandwiches. Coffee or cocoa
Ice cream and cake.
Jack-o'-lantern sandwiches. Sweet cider
Pumpkin pie with whipped cream
Black ghost salad
Brown Bread-Cream
Cheese sandwiches. Cider or coffee
Combination vegetable salad
Baked Apples Doughnuts

A large pumpkin scooped out and cut so as to form a handle on each side, rubbed outside until polished and filled with fruit makes a very attractive center piece.

came out. Push the needle under two threads, and pull through. Repeat this to the end of the row. Fasten as in the running stitch.

"These stitches will have to be done over several times before you can get them right, but practice makes perfect and this is how we learn to sew."

"Let us continue on with one more stitch for this lesson, called the half-back stitch. Commence as in the running stitch, putting the needle under two threads, then up through the canvas, downward through the first hole to the right of that from which the cotton hangs, and then under three threads. Now pull through, and repeat this to the end of the row. Fasten as in the running stitch."

"This really seems like a waste of time," I hear the little girl say, but half-back stitching and back-stitching are both very strong stitches. I can remember when we stitched all seams by hand just this way. We never knew what a sewing machine was years ago. I believe these are enough stitches for one lesson, and hope you will practice on these so as to be able to go right ahead next month with the rest of the lesson."

Navajos Make Blankets

THERE is likely to be an inundation of Navajo blankets this winter, according to Governor Campbell, of Arizona, who returned recently from his tour, which included a part of the Navajo reservation. For several years, or almost ever since the price of wool went up, the Indians have almost abandoned the ancient art of blanket weaving. There was much more profit in selling the wool than putting it into blankets and besides it was much easier.

But now the bottom has dropped out of the wool market and the wool of the Navajos is moving slowly, if at all, at ten cents a pound. At Tuba City the governor was told by John Kerley, a trader, that he had 150,000 pounds of wool that he had bought from the Indians and expected to lose \$10,000 on it.

Three pounds of Navajo wool as it comes from the sheep will wash out about one pound of pure wool. When this wool, at the present price would stand the Indian at thirty cents, when woven into a blanket would bring him \$1 a pound. Therefore the trader told the governor, the Indians were bringing out the looms that they laid aside years ago when they turned the Navajo blanket industry to eastern manufacturers and many of them are already holding half-completed blankets.

A pretty finish for the edges of a breakfast coat is to bind them, and the binding can be of the same or some contrasting material and color.

Plaids and checks and a few attractive mixtures give variety to the fabric line-up.

There are Buying Grocers and Selling Grocers—

The "buying" grocer stocks up with anything that comes along.

The "selling" grocer invests only in products that he knows he can sell.

You will find the buying grocer with a museum of baking powders on hand, while the selling grocer is wiring for more Royal.

It pays in more ways than one to sell

ROYAL Baking Powder

Absolutely Pure

Made from Cream of Tartar, derived from Grapes
Contains No Alum. Leaves No Bitter Taste.



Truly a Quality Coffee

It is the result of twenty-two years of careful and intelligent blending by coffee experts.



INSIST ON THE GENUINE

ROASTED and PACKED BY
JOANNES BROS. COMPANY
GREEN BAY, WISCONSIN

Comes already sweetened

Its own sugar is developed in the baking. It solves your sugar problem among ready-to-eat cereals.

Grape-Nuts

Order a package from the grocer. Its flavor appeals and there is no waste.

Made by
Postum Cereal Co., Inc., Battle Creek, Mich.



Northern State Normal College

MARQUETTE, MICH.

New Buildings Excellent Equipment Splendid Faculty

College Courses leading to A. B. degree—Normal School Courses for teachers of all classes—Special Courses in Art, Music, Manual Training, Home Economics, Kindergarten and Commercial.

The school has had more calls for teachers than it can supply
Write for information and bulletin

DORIS I. BOWRON, Secretary

JAMES H. KAYE, President

Watch the Pennies

but don't let them hide the dollars. A few cents worth of inferior flavoring extracts can spoil several dollars worth of other ingredients.

Van Duzer's Certified Flavoring Extracts

are preferred by those who realize that using the best is usually true economy. They have long been noted for their delicious flavors, purity, richness and strength.

Van Duzer Extract Company
New York, N.Y. Springfield, Mass.



"Love & Sympathy"

Truly Expressed by
Flowers or Emblems

from

DULUTH FLORAL CO.,

Duluth, Minn.

Ziegler's Chocolates

Package Goods of
Paramount Quality
and
Artistic Design

Home-made Fireless Cooker, \$2.00

MRS. A. A. Wilson of Janesville, Minn., has tried out the fireless cooker and likes it. "I cook oatmeal in it often," she writes. "I heat the stone about twenty-five minutes and then place the oatmeal and the stone in the cooker. The oatmeal is perfectly cooked in the morning. I baked beans and fried chicken. I placed these in the cooker about 8 a. m. and they were thoroughly cooked for dinner."

Home convenience classes, conducted by the women's department of the Waseca County Farm Bureau, have been considering the home-made fireless cooker and the uses to which it can be put.

According to Adele Koch, of Minnesota State University Farm, assistant state leader of home demonstration agents, the makings of this cooker are a large pail, preferably a 100-pound lard pail, and a well for the cooking utensils. The well should be about six inches smaller in diameter than the outer container or lard pail. Sheet asbestos should be fastened around the well and the bottom. The space between the well and the pail should be packed solidly with crumpled paper, sawdust, excelsior, ground cork or steel wool and there should be at least three inches of packing under the bottom of the well. A tin lid to cover the well, a soap stone to place in it as a heater, a stuffed pillow to fit over it, and your fireless cooker is finished at a cost of less than \$2.00.

To keep ham and bacon from molding, after having sliced off a part of it, rub lard over the exposed surface. The mold then forms on the lard instead of the ham and is easily removed.

It is not unusual to find a pure bred cow, or a good grade, that gives more milk than a whole herd of scrubs.

When making peach shortcake, buter the biscuit dough well before spreading with peaches.

WHAT SHALL WE SERVE FOR BREAKFAST?

NOW that the days are growing colder and the body requires more warmth, the question arises in the household as to what shall be served for breakfast. The working man must have more substantial foods than the child who goes to school.

Breakfast, perhaps, is the most difficult meal to plan at present high prices, but between the old-fashioned hearty breakfast on the farm and the coffee and rolls of the slender modern meal, there are many golden meals possible if planned before hand.

For those whose days are busy it is necessary to start the day with a good, nourishing meal. This does not mean that the stomach should be overloaded. We must have just enough to prevent feeling faint in the middle of the morning. Many a man and woman has become exhausted in the middle of the forenoon trying to work without proper nourishment to start the day.

How many mothers hear the child say upon coming in for the noon meal, "Oh, I have a headache and don't feel hungry." But after eating, how much better they feel. Then, too, there is danger when the child is over-hungry. The food is eaten so fast that gas forms, causing indigestion.

Our bodies need to be built up on a cold, frosty morning the same as a coal fire in the furnace. No fuel, no heat.

Meats being so expensive, very few of us can afford them every morning, so we must use eggs and griddle cakes in their place. Where eggs can be served very regularly, there are various combinations which are excellent and do not require one egg for each person.

Then, too, almost every one likes a little fruit or sauce for breakfast. For these appetizers we must watch the market to keep down expense. Do not be in a hurry to serve the fruits as they first come on the market. Later in the season fruits are better and not so expensive. They are more fully ripened and far more pleasing to the taste. One also appreciates fruits more in season than during the entire year. Buy grapefruit when there is a sudden drop in prices, oranges when most plentiful, and bananas when ripest.

Apples are very good baked, fried or in sauce, and cannot be improved upon for a morning fruit. Stewed rhubarb or prunes are very good for any one who does office work or is not on his feet very much during the day.

At the beginning of cold weather the cereals to be cooked can be bought in large quantities and kept in glass fruit cans or other containers, thus circumventing a rise in prices later on.

Cereals in themselves are not so expensive, but it is the time required in cooking them and the sugar and cream served on them which make the cost come so high. Many grains and cereals, such as oatmeal, hominy and others, may be purchased by the pound. Indian meal mush is an excellent cold morning dish, but very few people use it. However, it is nutritious and cheap.

All cereals in the raw grain must be cooked steadily at a low temperature for one to three hours. A double-boiler must be used for this purpose. The amount of water required for cooking the various cereals depends greatly upon the kind of grain. Oatmeal, cracked wheat, hominy and cornmeal should be given four cupfuls of water to one of cereal. The granulated wheats require three cupfuls of water to one of cereal. Rice should be placed in six times its bulk of water.

The question of salt is important, also, and the housewife will do well to remember that a teaspoon of salt to a pint, or two cupfuls of water, will make the cereal just salty enough for most tastes. The salt should be placed in the water before the cereal is added. Dates, seeded, rinsed and cut in quarters, and added to any cereal a

few minutes before taken from the stove, make a nice change and add nourishment to the food. Washed figs or stewed prunes may be used in the same manner.

If hominy, wheat preparations or corn meal are selected for breakfast, cook more than is needed for one meal. Mix with the portion that is left over a few bits of minced ham, sausage or bacon. Put this in a baking powder can to cool. Next morning slice it in half inch slices, dip in flour and brown in fat. Serve very hot with or without a syrup.

Have you ever tried ham balls? They are made like fish balls, using about half as much minced ham as you would salt fish. Sausage may be used instead of ham.

Then we have the ham and egg combination from left-over pieces of boiled ham. Grind the ham and heat in its own fat in a spider. Drop in three or four eggs and season with pepper and salt and serve hot. A little minced onion may be added to this if one cares for the flavor in the morning. Very few people care for tomato sauce in the morning, but just try creole tomato scramble some time, and you will like it. Cut up three or four tomatoes and cook with a minced onion, salt and one teaspoonful of sugar. Cook about twenty minutes or until tender and rather thick. Break in three eggs, add one-half teaspoonful of salt and one tablespoonful of butter. Stir slightly until the eggs are set. Serve on hot buttered toast. In this way three eggs will serve four people, allowing a half slice of toast to a person.

Many different kinds of gems or Johnny cake is very good in the morning. Make nice corn cakes enough for two mornings, using one batch for the second day and baking it in a pan. When wanted, split, toast to a rich brown and butter well. The moment before serving lay it in a hot, deep platter and pour over it hot milk, marmalade or apple sauce. This makes a delicious breakfast dish.

Griddle cakes to which rice, hominy or bread crumbs are added are always very good and if well made and quickly and thoroughly cooked are light and digestible. Corn meal griddle cakes are seldom seen, but if once tried will often be used. Beat one egg well, add one-half teaspoon of salt, a tablespoon of sugar, a cupful of milk, a tablespoon of shortening, and corn meal and flour in equal quantities—about one cupful of each—and two teaspoons of baking powder and one-half teaspoon of soda, sifted with the flour.

Rice fritters will be enjoyed on a cool, frosty morning if one cares for fried things. Take two cupfuls of soft boiled rice, one pint of sour milk in which is dissolved one teaspoonful of soda, one-half teaspoonful of salt, one-half cupful of sugar, one or two eggs well beaten, a good teaspoon of shortening and flour enough to make a stiff batter. Fry in deep fat and serve with a syrup or marmalade.

- At this time of the year care should be taken to have a supply of green vegetables and fruit in the daily diet. Avoid an excess of protein foods.



Development Section

Of the Cloverland Magazine

Along the northern rim of the Great Lakes Basin—across the states of Michigan, Minnesota and Wisconsin—there is a great belt of undeveloped land.

A few years ago it was considered worthless—just stump land, no longer good for lumbering, and therefore useless. Today this area is recognized as the greatest frontier America has yet offered her people.

Clover is indigenous—therefore this country has been called "Cloverland"; but every other crop, native to the north-temperate zone, and every form of live stock, has been made to thrive in this new country.

Today there are many settlers, many fine farms, many thriving towns, and wonderful cattle and sheep ranches. There is room, on some 30,000,000 acres, for thousands of additional men and women, some of whom will surely achieve unusual success, and perhaps fortunes.

The Magazine is convinced that the Cloverland country has more real opportunities for farmer, rancher and business man than any other section of the United States today. But these opportunities must be carefully and soundly handled.

On the following pages you will find articles relating to this great cut-over country, known as "Cloverland." They are written by men who already live in the country, and who know it. The Magazine does not assume responsibility for all of the views or expressions included in these articles, recognizing that sometimes as individual experiences though truthfully set forth, may not be applicable to every other similar situation. However, the Magazine accepts statements only from men of standing and responsibility and believes therefore, that the following pages fairly reflect the conditions and probabilities of the North Country—"Cloverland."

Reclaiming Cut-over Country by Colonization

By L. D. TUCKER, Upper Peninsula Development Bureau, Marquette, Mich.

THE evolution of a single plan for the colonization and settlement of 5,000,000 or more acres of idle, agricultural land may be justly considered a mammoth project—and that is probably the reason for the decision of one or two of Upper Michigan's biggest lumbermen-landowners to establish a systematic plan of colonization upon their holdings is considered, today, one of the rarest features which has ever occurred in the history of that region's agricultural development.

The present move is the out-growth of a decade or more of effort on the part of Upper Michigan's land owners toward the successful utilization of the vast acreage of idle, cut-over lands resulting from the years of active lumbering operations in that region. From a patch or two of stumped lands, here and there, to an ever-increasing chain of open areas, many comprising as much as 50,000 acres and more, the Upper Peninsula of Michigan—as well as other sections of Northern Wisconsin and Minnesota, have struggled with the great problem for years. There are now over 8,000,000 acres of cut-over land in Upper Michigan, at least 5,000,000

of which are particularly adapted to agriculture. A number of possible solutions have been offered, some tried—and failed, a few still operating and others pending. There has been grazing.

An extensive and expensive advertising campaign has brought some 50,000 head of sheep and 6,000 of cattle into Upper Michigan during the past three years. It has barely scratched the surface. More are on the way, but the highest estimate for the next two or three years would offer but slight improvement, and surely only partial solution to the situation.

And the landowners were still groping around, blindly grasping for almost any proposition which looked like a reasonable way out, when, early last spring, A. L. Mordt, general manager of Home Lands, Incorporated, a colonization concern which has been operating successfully in Northern Wisconsin for the past two years, invaded the region on his first tour of inspection. He looked over the territory, discounted the good from the bad, and decided that there was ample opportunity in Upper Michigan for the successful development of his plan of colonization.

The next step was logical enough. Mr. Mordt sought out the landowners—lumbermen for the most part—and laid his plan before them. He submitted a plan which, he claimed, would convert the vast areas of idle lands into thriving, successful farming communities. But the first trip netted little or no results, as far as actual contracts were concerned. However, he had given them something to think about.

A letter from one of Upper Michigan's biggest landowners, requesting further information, brought Mr. Mordt into Upper Michigan a second time. Once more he made the rounds, and he found that, in the meantime, his clients had been doing some thinking. In fact, he found several who were not only eager to listen, but who needed but the slightest urge to "push them over." And Mordt added the "slightest urge."

And now his third, and present trip, to Upper Michigan finds Mr. Mordt preparing a large tract of land in this region for an influx of settlers next spring.

In other words, Dr. G. W. Earle, president of the Wisconsin Land Com-

pany, of Hermansville, Upper Michigan, has invited Mr. Mordt to take hold of a large portion of the company's lands and set his plan into motion. Authoritative rumor also has it that the J. W. Wells Lumber Company, of Menominee County, is considering the same move for the utilization of its thousands of idle acres, or such of that land as may be adapted to agriculture.

Officials of the land department of the Cleveland Cliffs Iron Company, probably the largest landowners in Upper Michigan, have notified Mr. Mordt that they will doubtless send a representative into Wisconsin, in the near future, to investigate the results achieved there, preparatory to establishing a similar system on some of their properties, and again we learn that the largest land concern in Alger County is seriously considering turning over a huge tract of land to Mr. Mordt, as a starter.

Thus, it is significant that there is an increasing tendency upon the part of the bigger land-owning interests of Upper Michigan to utilize, with at least partially-assured success, the vast acreage of idle lands which has

What Is the Most Valuable Asset to a Community?



The picture to the left shows cut-over land where clover has been self-seeded in patches cleared of growth and underbrush by forest fires. The picture to the right shows reclaimed cut-over land and a magnificent crop of potatoes given up by the virgin soil and marvelous fertilization of clover.



250,000 Acres unimproved Cut-over Lands

For Sale

in Tracts to suit
the purchasers.

Located in four-
teen counties in
Cloverland — the
Upper Peninsula
of Michigan.

Prices:

**\$5 to \$15
per Acre**

Terms are reasonable

Write me for definite quotations, maps, etc.

J. M. LONGYEAR
MARQUETTE, MICHIGAN



*The Beginning of a Farm Home. Something for a Man and His Family,
and Something for the Community.*

been such a serious detriment to the country for the past decade.

For the present the work of Mr. Mordt in Upper Michigan will be preparatory. The first step in carrying out the plan is the work now being done by Messrs. Charles J. Vogt and Raymond Leigh, the first an expert appraiser of lands and the latter a land-looker. The two are preparing a soil map, and appraising the land, not according to the dictates of the owner, but to its actual value from the standpoint of productivity—a distinct feature of the Mordt plan. Upon the presentation of the subsequent report to the company owning the lands will depend the final acceptance of the plan.

If that step of the system is completed satisfactorily to the landowner, then will begin the actual working out of the Mordt system of colonization. That is, immediately the appraisal is accepted by the landowner, the division of the tract into farm lots, or sales units, will begin. This accomplished a sales campaign is carried out during the winter and following spring, the first of the settlers arriving in the late spring or early summer.

As far as the application of the plan to Upper Michigan is concerned, it is apparently ideal. Where such vast open areas exist, as is the case at present throughout Upper Michigan, it is doubtful whether any better plan could be applied for the immediate utilization of the cut-over areas. The system, moreover, involves a vast amount of detail, providing a thoroughly efficient community organization, with recreation centers, a credit concession for worthy settlers, the services of agricultural agents, and, in other ways, the constant assistance and co-operation of the colonization concern with the settler. Much has been said and written of the success which the plan has achieved in Northern Wisconsin, yet not until now has it ever occurred to Upper Michigan's

landowners that it at least merits a tryout in this region.

In putting the plan into motion the colonization company does not assume right or title to the land in any way. The organization merely acts as an agency to the land owner for the disposition of his holdings and for the encouragement of the rapid development of that land through agriculture. After the initial cash deposit, no further payments are asked for five years, interest, however, accruing during that period. In the meantime, to further encourage the more rapid development of the land and success of the farmer, the colonization company assumes the responsibility and detail of furnishing, on credit if necessary, such equipment as may be vital in the proper conduct of the work. This includes farm machinery, a limited amount of live stock, fencing, seed, team hire, dynamite and other requisites, the cost for the service placed at a minimum and added to the cost price of the land, with the same provisions for payments maintaining.

Thus, with five years in which to turn all profits back into the original investment, and with the co-operation of an organization which is constantly working towards the betterment of conditions within each farmer-community, it is clear that the land thus developed must realize a maximum of productivity in a minimum of time.

Those who have lived in Upper Michigan the greater part of their lives, and are vitally interested in its growth and progress; those who have moved into the region in past years and become attached to its climate, scenery and its possibilities for agricultural and industrial development, and, finally those who, possibly, have "an axe to grind" in the apparent solution of the idle-acreage problem are jubilant over the probability of having, possibly, stumbled upon the right way out, after all.



The Finale of a Small Beginning on the Cut-over Lands of Cloverland



A Sure Safe Route to Prosperity

Northern Minnesota is no longer an experiment. The returns from the soil, natural grasses and clover, in the dairying and sheep and beef cattle industry have been proven and found more than satisfactory.

We are prepared to make you propositions on large or small tracts. Our plan assures you our interest in your success. A letter of inquiry will bring more detail information. Write us.

Cloquet Lumber Company Northern Lumber Company Johnson & Wentworth Lum' er Company
CLOQUET, MINNESOTA



WE HELP YOU!

All we ask of any experienced stockman or farmer is a clean record, possessing ambition and the energy to go forward. If you have these requisites write to us and we will give you a choice location on some of our best cut-over land on terms and conditions that will enable you to make a success if you have the right kind of stuff in you.

Write to Us

Tell us about the size acreage you want, what you want to do with it, whether you now possess any stock—beef cattle, dairy cows, sheep or swine, and horses—whether you have any farm implements and tools, and give us one or two references.

We Will Do the Rest

We have thousands of acres of good, hardwood cut-over land, watered with clear streams and lakes, with an abundance of grass and clover going to waste each year. There are no commissions to pay. We own the land and make terms and arrangements with each purchaser to suit his needs, and give aid in establishing credit and banking connections. Tell us frankly what you want. All correspondence confidential.

SAWYER GOODMAN COMPANY
MARINETTE, WISCONSIN
Or
GEORGE H. HEDQUIST, Supt.,
GOODMAN LUMBER COMPANY
GOODMAN, WISCONSIN



A Perfect Type of Guernsey Cow, and a World Record Producer

BREEDING and FEEDING DAIRY CATTLE

(Continued from page 3)

live weight in butterfat in a year. The majority of ton cows cannot produce more than 40% of their live weight in butterfat in a year. Given every advantage of feed and care, 40% of an animal's weight is not a sufficient production of butterfat.

Another point in which the Guernsey excels all other breeds of dairy cattle is that of quality. Guernsey milk is rich in fat, rich in solids, rich in color and flavor. Over 9,500 yearly records show an average fat percentage of over 5%. Guernsey breeders were first to start an Advanced Registry, to enter which mature cows must produce 360 pounds of fat or more in a year. They have never based a cow's value on a record for a shorter period, for they figure a cow must be fed 52 weeks every year, therefore, any true estimate of her ability must be based on a test covering the same period of time.

Guernsey milk is of higher natural color than that of any other breed and is of better flavor. Some will say, "What does that matter? It all sells." To be sure it does—*now*. But we hear a good deal about over-production in the dairy business. It may be foolish or it may be well founded. Should such an over-production occur, however, who will suffer first?

Now we must remember that the great majority of dairy cattle are grades and will always be grades. That does not mean, however, that they will not be good dairy cattle, and a registered Guernsey bull will be a wise investment for any farmer

who intends to milk cows for a profit. It is a well known fact that the Guernsey bull crosses well with common stock. By crossing well, we mean that the offspring are stamped with the general Guernsey characteristics and are more apt to be a uniform lot than will be obtained by crossing the other dairy breeds on common cows. Uniformly good udders and teats are the rule among Guernsey grades as well as pure-breds. The Guernsey grade commands top prices at every public sale and auction. This shows the esteem in which Guernsey grades are held by the cow-buying public.

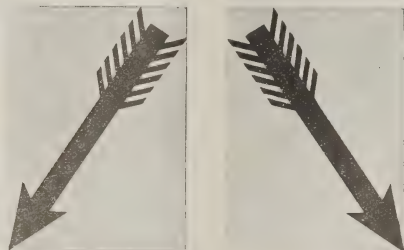
The Guernsey bull is the best positioned of any bulls of the dairy breeds, and this is not an unimportant consideration. For years on the Island of Guernsey the law has required the immediate slaughter of any bull that showed signs of ugliness. The wisdom of this law is now apparent and the effect on the disposition of Guernsey cattle in general is most marked.

In view of these facts: That the Guernseys have been bred and fed for years along the lines which would tend to make them ideal for Cloverland climate and feed, that they are the right size for economical production, that their milk is the height of quality in fat and solids, highly colored and of fine flavor, that they are of quiet disposition and possess uniformly good udders and teats, that the bulls cross well with common stock, we must conclude that the Guernsey is the ideal cow for the Cloverland farmer.

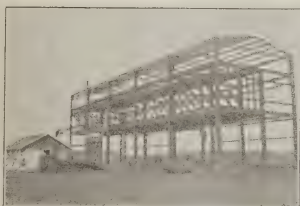


Six Sons and Daughters of Bida's May King, Bred and Owned by Island Farm, Island, Minnesota.

LET US HELP YOU



Plan Your Auto Trip



Select A Plant Site



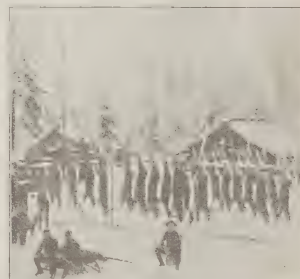
Choose A Farm



Secure A Ranch



Locate A Summer Camp



Route Your Hunting Trip

CLOVERLAND

*The
Upper Peninsula of
Michigan*

for

FARMING

GRAZING

TOURING

FISHING

HUNTING

CAMPING

LUMBERING

MANUFACTURING

WRITE

The UPPER PENINSULA DEVELOPMENT BUREAU
OF MICHIGAN

MARQUETTE

MICHIGAN



These companies were the first to bring cattle to its cut-over lands, and carry on profitable and successful grazing in Cloverland.

WE offer the western grazers their choice of 75,000 acres of cut-over lands in Cloverland; 25,000 in Northern Michigan; 50,000 in Florence and Forest Counties, Wisconsin.

Several ranches were selected and taken over last year by well-known western cattle and sheep men.

Write us for particulars or come and see these lands for yourselves.

J. W. WELLS LUMBER CO.
MENOMINEE, MICH.

GIRARD LUMBER CO.

J. W. Wells, President

DUNBAR, WIS.

MENOMINEE, MICH.

To End Gambling in Wheat

CHEAPER bread in the cities and more money for the producers of the wheat that makes that bread are the results which are sought by seventeen agricultural economists who have set themselves to the task of devising new methods of marketing the grain crop of the country, according to the Michigan State Farm Bureau.

This committee selected by the American Farm Bureau Federation is representative of all farm organizations of the great grain producing regions of the country, or the agricultural press, the agricultural colleges, the U. S. Department of Agriculture, and the general public. C. A. Bingham, secretary of the Michigan State Farm Bureau, is one of our representatives of farm bureaus of the country on the committee.

The reasons for this committee and an idea of the tremendous task it is tackling are set forth by the farm bureau as follows:

Few buyers of bread realize the reasons for the price they pay. If bread goes up a cent or two or more a loaf they resentfully ask their baker "why?" "Flour costs more," is the response, and the customer ejaculates "Oh," nine times out of ten and forges the incident.

But the farmer explains that the cent or two or more increase which doesn't go to him, though he produced the wheat that made the flour for the bread, is due simply to gambling by middle interests or speculators handling of the grain between the farms and the consumers' tables.

Why there are violent fluctuations in the price of wheat even after the size of the crop is determined, while uncooperative, is easily explained. It is simply due to gambling by grain brokers prior to the harvest, or in the parlance of the trade "deals in futures."

Deals in futures are buying or selling with delivery of the grain several months distant. Statistics of the Chicago Board of Trade show that millions of bushels more of grain are sold in the course of a year, and recorded as transactions there than are actually raised in the country. This endless "washing" or chain of paper deals naturally operates to increase or depreciate the price of the actual commodity.

It is to eliminate this speculation and to substitute a farmers' co-operative sales system that the committee of seventeen was appointed. It is too late to consider even wildly that any of this year's crop will be handled under any plan that may be worked out, and it is doubted by the farm bureau if any plan is evolved that may be put to work next year. It is hoped, however, that by 1922 a new system may be made effective.

It is one of the greatest tasks and

most far-reaching in effect, if successfully done, that ever has been attempted by American farmers. Its tremendousness may be weakly illustrated by the following figures:

U. S. wheat production in 1919 was 940,987,000 bu-hels with a total value of \$2,024,008,000.

U. S. rye production in 1919 was 88,478,000 bushels with a total value of \$119,041,000.

U. S. oats production in 1919 was 1,248,316,000 bushels with a total value of \$89,663,000.

To illustrate what the size of the job is in the various states, the following figures of Michigan may be pointed out, and Michigan is only an average grain-producing state, not among the largest:

Michigan wheat production in 1919 was 26,231,000 bu-hels with a total value of \$42,497,000.

Michigan rye production in 1919 was 13,500,000 bushels with a total value of \$17,280,000.

Michigan oats production in 1919 was 36,875,000 bu-hels with a total value of \$26,181,000.

It is really a man's sized job. But it is not all pioneer effort that must be made. There is a crude foundation. For example in Michigan, the Michigan State Farm Bureau has begun the selling of the produce of the handling of the grain within the state more efficiently and economically. Community elevators are in existence in many towns and villages. This list is being added to by the farm bureau, which has 85,000 members in the state. A central selling agency, or brokerage exchange, is being set up. With the exchange the community associations list their volume of grain, as embodied by the farmers of the vicinity. The sale is made by the central organization and shipment is made from the local point of assembly.

Other states are developing grain handling organizations of a similar character. Some are binding individuals of communities by contracts to market all of their grain through the local associations and in turn through the central organization, which can sell and aims to sell directly to the mills.

It is possible that the plan worked out by the Committee of Seventeen may call for some contractual relations between the local associations and the individuals, the formation of a central state selling agency in all of the mid-western grain-producing states and a national regulatory sales agency, supplanting the board of trade. Such an arrangement would give the farmers absolute control of their grain products until they reached the mills to be turned into flour. Speculation would be ended.

BETTER PRICES FOR BUTTER

HIGHER prices for butter will unquestionably result when Wisconsin creameries form co-operative organizations and place a standardized product on the market," says B. H. Hibbard, agricultural economist of the Wisconsin College of Agriculture, in commenting on the present movement among creameries in various sections of the state to seek better prices through co-operative effort.

"Unknown brands of Wisconsin butter or no particular brands which are now placed on the market sell on individual merit and sell under all the uncertain conditions of the market from day to day. If federated creameries would put a uniform grade of butter on the market, make it a definite brand which can become known, they will find that higher prices will surely result."

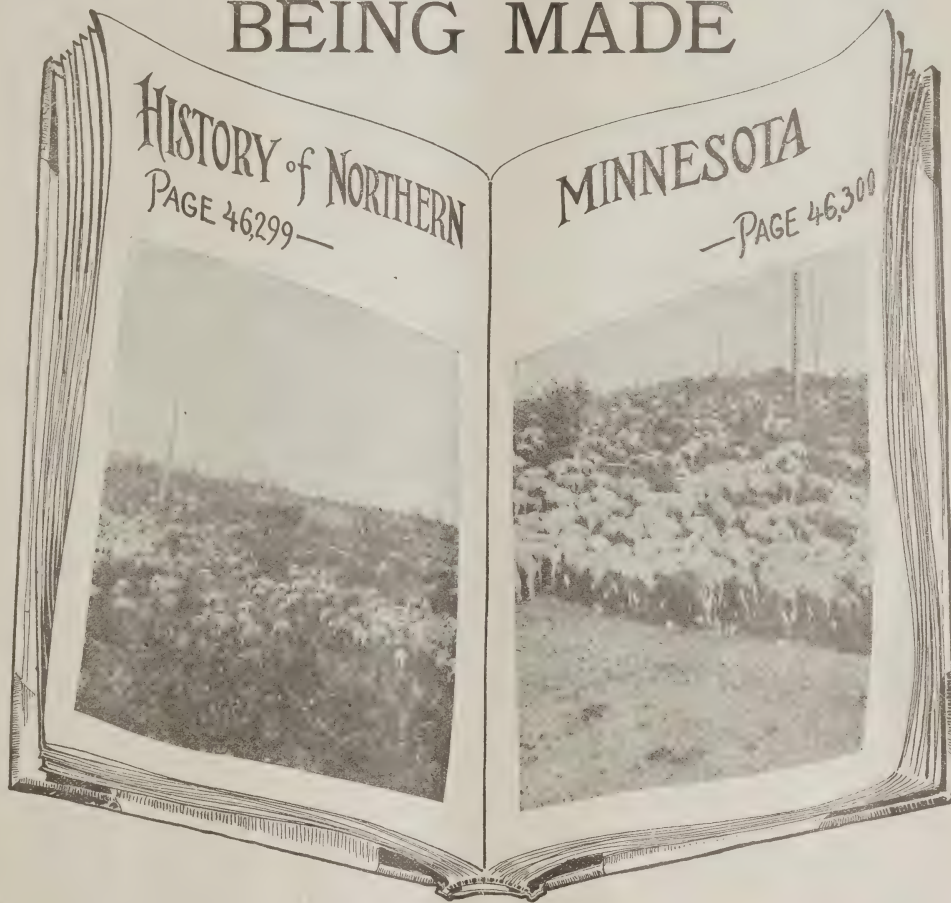
Butter from centralizers sells well because they put a known brand of butter on the market which has a uniform quality. Such butter is easily sold on the market, and sells readily to retailers and to consumers. Co-operative creamery organizations can do as well. They can also put an agent

in the field to watch the markets and to look up good markets for their product.

Some districts are contemplating building co-operative storage plants to butter to tide their product over periods of low prices," says Mr. Hibbard. "This is probably an idea worth considering, although the idea has not been tried out much. As long as it could be handled in carload lots the costs would probably not be much greater a pound than it would be in a large establishment. It would be worth while to visit several cold storage plants to find out how large the expenses are before a district makes an attempt to build a plant of their own. It must also be considered whether by this plan middlemen services can be conducted better in the particular district than through the middlemen who exist there."

The first egg-inspection certificate was issued at the New York office of the Bureau of Markets on Aug. 26, covering a carload of eggs shipped from California. Inspection was for breakage only.

AS HISTORY IS BEING MADE



Not only during war is history made. The development of the agricultural and industrial opportunities exert a far greater influence on our national life and fill many more pages of history.

History is being made rapidly in the development of sheep and cattle ranching and farming in Northern Minnesota, and as has always been true, the greatest profits are made during the period of development—not after the land prices have gotten beyond the average man's reach.

Minnesota invites you to share in this prosperity. A letter will bring you promptly more detail and facts on agriculture in Northern Minnesota.

J. S. ARNESON

Commissioner of Immigration

STATE CAPITOL

ST. PAUL, MINNESOTA

We Want Settlers in Gogebic Co., Mich.

This county is making settlement of the land a part of its official business, and all settlers are directed to the County Agricultural Agent, whose expert services are to be had free of charge in approving land selections, advice as to clearing, crops, cultivation, live stock growing and dairying.

The big iron mining district of Ironwood affords immediate market for all farm products at profitable prices. A mining community is a consuming community and is always willing to pay good prices for good farm produce.

There is no better opportunity anywhere in the country today to enjoy quick and satisfactory returns from the farm, especially if you have a few dairy cows and chickens.

There are thousands of acres of good farming land in Gogebic County that may be purchased at very low prices and on easy payments. There are good roads and intersecting roads which afford easy access to market, and splendid railroad facilities for shipping. There are good schools throughout the county, and churches that supply a social need not always available in more sparsely settled regions.

There are large tracts of standing timber adjacent to the cut-over land which may be purchased.

Gogebic County has all the natural resources—mining, timber, agricultural land. Could you ask for a better combination in seeking a profitable farm home?

FOR DETAIL INFORMATION WRITE TO

C. E. GUNDERSON

County Agricultural Agent,

IRONWOOD

MICHIGAN.

Gypsy Moth May Invade Wisconsin

THE Wisconsin Department of Agriculture is investigating the possible introduction of the gypsy moth into the state. This moth is one upon which Massachusetts is spending over \$1,000,000 a year in an attempt to keep the ravages within bounds. For nearly thirty years it has been doing a tremendous amount of damage in the New England states to shade and forest trees and has widely distributed in the territory.

This summer, according to recent information received by S. B. Fracker, entomologist for the State Department of Agriculture, a new outbreak of the moth was discovered in an area of about twenty-five square miles in New Jersey, followed shortly afterward by a similar discovery in central Pennsylvania. The center of the New Jersey area is a nursery, known as the duke estate, from which shipments of nursery stock have been sent to many parts of the United States.

A shipment of blue spruce was sent from this nursery three years ago, one of Wisconsin's largest nurseries and some of the trees were immediately sold to customers.

Members of the state entomologist's staff are tracing all of the shipment from the Wisconsin nursery which could possibly include any of the original trees sent from the duke estate or trees which adjoined them in the nursery during the following summer. This involved the tracing of sixty three shipments of nursery stock to all parts of Wisconsin.

A small outbreak of gypsy moth can be eradicated by extensive spraying and the search for egg masses, but it is not known whether the New Jersey infestation has gone beyond the hope of control in its original locality.

The seriousness of the moth menace, however, justifies the precaution of every farmer to curb them early.

A DEPENDABLE RANGE

is the goal of every stockman. With a dependable range he feels sure of success and secure against future adversity. A tract of select, cut-over land in Cloverland offers stockmen this opportunity.

Tracts to Suit Needs

We have several choice ranges among our holdings which we will sell to practical stockmen on terms that will be to his advantage.

CONSOLIDATED LUMBER CO.

MANISTIQUE, MICHIGAN

"In the Heart of Cloverland"

Farm Bureau to Market Hay

UPPER PENINSULA farmers are going to sell 2,500 cars of hay co-operatively this year. This report comes from the state farm bureau which claims a membership of 5,000 in the Upper Peninsula counties.

In Chippewa county 1,200 members voted to sign collateral notes and a two year contract to sell all their hay co-operatively, according to the farm bureau. Its description of far northern conditions follows:

"The local co-operative organizations have all endorsed this action. The sentiment in many communities there was to make a contract on a basis of

from three to five years like the plan of the California Fruit Growers. The final form of the contract specifies two years. The surplus of hay this year is 2,500 carloads, about two-thirds of which is mixed timothy and clover and one-third alsike. The farm bureau expects to handle this hay through the newly formed farmers' elevator exchange of Michigan with headquarters at Lansing. Annual shipments of hay from Chippewa county totals half a million dollars worth. The county farm bureau expects to take over this business and, by dealing in other farm necessities, expand into a business of several million dollars annually."

Statement of the Ownership, Management, Circulation, Etc., required by the Act of Congress of Aug. 24, 1911, of the CLOVERLAND MAGAZINE.

Published Monthly at Menominee, Mich.

For OCTOBER, 1920

STATE OF MICHIGAN,
County of Menominee, ss.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared R. M. Andrews, who, having been duly sworn according to law, deposes and says that he is the publisher of the Cloverland Magazine, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

1. That the names and addresses of the publisher, editor and business managers are:
Publisher, R. M. Andrews, Menominee, Michigan.
Editor, Henry A. Perry, Menominee, Michigan.
Business Manager, P. C. Munroe, Menominee, Michigan.
2. That the owners are Herald-Leader Company.
3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

4. That the two paragraphs giving the names of the owners, holders, and security holders, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in case where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; given also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of bona fide owners; and this affiant has reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stocks, bonds, or other securities as so stated by him.
R. M. ANDREWS,
Publisher.

Sworn to and subscribed before me this 29th day of September, 1920.

ALBERT CARL SEIDL.
(My commission expires Sept. 21, 1921)

A Real Plan to Aid Settlers

Investigate! Read Our Plan. Investigate!



WE ELIMINATE THE FIRST FEW YEARS OF HARDSHIP.

We have set aside a fund to help you clear the land or have a portion cleared and under plow if you want it.

We provide a residence and farm buildings, horses, cows, sheep, pigs, chickens—everything needed to settle right down and go to work to make the land and live stock pay for your farm home, if you want to start this way. Or, we will sell you the unimproved land if you prefer to do all of your own clearing, build and stock your own place. All deals on easy, long-time payments.

We have three classes of land—first class, medium, and second class. You pay for the CLASS of land, and not a big price for poor land.

We give you expert advice in agriculture and live stock production free, in order to help you avoid mistakes and succeed in the shortest possible time. The more we can help you pay out the quicker our money is returned and the sooner you will have that coveted possession—a farm home of your own. This is good business for both of us.

RANCH LAND

We have thousands of acres of splendid grazing land with plenty of fresh water streams and lakes and ample sections of good farm land for raising winter feed. This land is cheap and we will make it to the advantage of the larger live stock operators to obtain one of these dependable ranges. These tracts in 1,000 and 5,000 acres solid blocks.

SEND FOR BOOKLET AND COMPLETE INFORMATION
A POSTCARD WILL BRING IT

NORTHERN MICHIGAN LAND COMPANY

MANISTIQUE, MICHIGAN

309 Caswell Block, MILWAUKEE, WISCONSIN



RED CROSS 20% DYNAMITE



Made this Possible

Here was a fine piece of land absolutely useless because of the stumps that nearly covered it. Cultivation was impossible until the owner applied the lightning fast, giant strength of Du Pont Red Cross 20% Dynamite to the stumps, quickly uprooting and shattering them as shown.

Ten months after blasting was complete he harvested a celery crop of \$800.00 to the acre. Truly, dynamite works wonders in land-clearing.

Put it to work for YOU—NOW!

This is a great year for land-clearing, the biggest your state has ever known. Almost everyone reclaimed some waste acres. Are you lagging behind your neighbors? Remember that your uncleared land might be growing crops and bringing in a fine profit. Get after those stumps right NOW before snowfall. Get more land ready for planting in the Spring.

Your dealer can supply you with Red Cross 20% Dynamite and Blasting Accessories.

Write for our Farmers' Handbook of Explosives.



E. I. du Pont de Nemours & Co., Inc.

McCormick Building, Chicago, Ill.

Hartley Building, Duluth, Minn.

I. Stephenson Company Trustees

WELLS, MICHIGAN

Offer to Homeseekers on the Sunny Side of Cloverland, the Upper Peninsula of Michigan

- Choice of 400,000 acres of land at prices ranging from \$20 to \$30 an acre for cut-over land.
- A climate the same as upper New York, northern South Dakota and central Minnesota—this district is 600 miles south of the much advertised wheat belt of Canada.
- A variety of soils fit for all crops grown in the north temperate zone.
- Good roads, good schools, good water and climate.
- Home markets that now are forced to depend on outside communities for much of their food.
- Railroad service that brings 10,000,000 people within a night's ride for farm products, and the equal of that afforded the farmers of Indiana, Illinois and Iowa.

Fruit, Dairying and Live Stock,
Truck Gardening, Grains,
Root Crops

-An unsurpassed fruit country, protected by 1,000 miles of shore line along Lakes Michigan and Superior—a practical insurance against frost damage. A choice of five lines of farming

WHEAT PRICE FIXED IN BELGIUM

The government wheat purchasing commission at Brussels, Belgium, has fixed a minimum purchasing price for native cereals to be effective up to Jan. 15, 1921, according to the American consulate there. The established prices are as follows: Wheat, \$1.66 per bushel; maslin, \$0.261 per pound;

rye, \$1.38 per bushel; spelt, \$0.92 per bushel. The above prices are based on rate of exchange prevailing on Sept. 9.

Industrial optimism is not so exaggerated now as it was a year ago, so faces are being turned back toward the farm.

What One Pure Bred Sire Has Done

(Continued from page 8)

and fed to make them produce more milk for the Ashland trade, but the milk simply was there. It was a hard struggle during those years, but somehow, Carlson managed to keep his head above water. He took courage as little black and white calves began to gallop alongside their non-descript mothers, and grow to maturity. There was scarcely a visible trace of the scrub stock in any of them. He had been fortunate in purchasing an extraordinary good sire and didn't know it until the blood showed in his offspring, although he had a good record of ancestry behind him.

Then the first heifer calf freshened. What a revelation! The scales in the barn showed twice as much milk twice a day as her mother gave. And then another heifer came in, and another, until there were as many black and whites giving twice as much milk as the old herds of scrubs. But as fast as a grade Holstein became a producer a scrub disappeared from the farm forever.

At the end of four years all the scrubs had vanished and there were none but grade Holsteins on the place. But they were giving enough milk to make a good profit at the end of the year. Simultaneously with the complete turn-over of the dairy herd Carlson gave up the milk route in Ashland. The cows were giving so much milk that it was more profitable to patronize the cheese factory or the creamery, and the time required for delivering milk could be put in more profitably working on the farm.

With more time to clear land the tilled acreage broadened, and more crops supplemented the revenue from the ever increasing production of the dairy herd. Once over the hill the figures on the good side of the ledger multiplied and piled up, the brush line on the farm moved back, improvements were made, payments on the farm were met, interest was paid and

the mortgage on the little home Ashland was renewed. The Carlson farm was a going concern, and Carlson had made a reputation that the bankers confidence in him was no longer a man-killing breaking job on the farm, but a glorious work and more reasonable hours. After supper Carlson spent his evenings reading instead of milking and doing the chores by lantern light—reading more about pure bred stock, scientific agriculture, studying the business of farming from every angle and in every phase.

The grade cow that showed a 1 per cent increase over their pure ancestry also contributed more black and white to the herd. Time went on, and these three-quarter bloods showed further improvement, but course their production could increase by the same ratio as the first cross. Milk production continued on to increase.

Although Carlson was making money from grades, he wanted nothing but pure bred on the farm so when the book showed a favorable balance he purchased a first pure bred heifer calf. The year he brought home a pure bred Holstein cow that cost \$550. It was the best cow out of a lot of forty-one pure bred that was purchased by the Ashland County Holstein-Friesian Association of which he is a member. That cow won the grand champion at the Ashland county fair this fall and Carlson also carried home three blue ribbons from the fair.

Within another two or three years there will be nothing but pure bred Holsteins on the Carlson farm, unless it is the first offspring of the first pure bred bull he purchased, the 100 per cent center that proved the theory of sire being half the blood and the same in certain cases, and she will likely die on the farm and be buried with honors and human sorrow.



Edward Carlson



The Comfortable Farm Home of Edward Carlson

Are You Going to Feed?

With general prices for fat cattle about as high as a year ago, and with active conditions in practically all live stock lines, the purchase of young stuff for stocking and feeding purposes at their present cost looks very practical indeed. We have a big corn crop in prospect as well as worlds of other feed, and with some indication of less stringent money conditions, feeders should be able to avail themselves of the opportunities the market affords, and we think can have confidence that the future holds out sufficient inducement to invest in the stock at its present cost.

There is, as the records show, a lighter supply of stock in the country than a year ago at this time, and on the other hand, more mouths to consume it, and as we are not rebuilding our herds in the same ratio as they have decreased it seems only reasonable to predict that high prices are going to remain indefinitely. We don't think, therefore, that the feeder who has the facilities and can effect the necessary financial arrangements should hesitate to lay in good thrifty steers, lambs, etc., at their present cost.

We Can Save You \$50 to \$100 per Car

For many years this firm has made a specialty of its feeder departments and is in a position to afford the very highest class of service to its patrons. Men who are on the market every minute of the time are naturally much more capable of filling orders than the occasional visitor who cannot possibly study and digest market conditions in a few hours. We have made a specialty of filling orders by mail. This manner of doing saves the customer the expense of railroad fare, time lost, etc., in making a trip to the market, except, of course, he puts himself in the hands of a reputable feeder buyer. Very frequently, of course, the visitor cannot find what he wants the day he arrives and often he will go back with something he did not exactly want, but which he takes so that his trip may not have been a useless one. Our method of filling orders by mail is to buy the stock at what appears to be the right time, both as to the class of stock desired and its market value.

The next few weeks will see a fairly liberal movement of western cattle and sheep on the markets and correspondingly larger offerings of stockers and feeders. Our buyers are on the job and ready to serve our customers to very best possible advantage.

**Make Our Office Your Headquarters When
Visiting Any of the Markets Named Below**

CLAY, ROBINSON & Co.

LIVE STOCK COMMISSION

Chicago

South Omaha

Kansas City

South St. Joseph

Denver

Sioux City

South St. Paul

East St. Louis

East Buffalo

El Paso

The Farmers of Michigan Want Att'y General Groesbeck for GOVERNOR

L. Whitney Watkins, the Farm Bureau leader of Michigan and former Progressive Farmers' candidate for governor of Michigan, has made public the following reasons for his support of Mr. Groesbeck, the Republican nominee:



Hon. A. J. Groesbeck

"We farmers like the way Mr. Groesbeck approaches public problems. We liked the way he conducted the affairs of the attorney general's office with a saving, in various ways, of two million dollars to the people, and we liked the way he called the farmers in after he was nominated and asked them what they thought was best for the economic welfare of not only themselves but of all the people of the State of Michigan.

"Mr. Groesbeck didn't do this when he needed the farm vote most—before the primary. We believe his election was already assured when, after his nomination, he came to us and asked us what we needed. In the primaries he left the farmers to Mr. Campbell. The conference with our leaders afterward was the first time in history, to my knowledge, a gubernatorial candidate ever sought us out to discuss affairs with us.

"Thousands of farmers wanted Mr. Campbell for Governor, feeling he knew the needs of the agriculturists. Mr. Campbell's friends are now with Mr. Groesbeck. They recognize the Republican candidate is broad enough to include their own business as producers of food along with other basic industries in his plans in behalf of the state at large.

"After all, what is of greatest benefit to the farmer is the consumer, and we believe Mr. Groesbeck recognizes this. Anyone who traces to its ultimate destination the money he spends for commodities will discover that it isn't the farmer who gets an unjust share. The money disappears in other places between the producer and the consumer, oftentimes the cost and delays of transportation alone amounting to several times what the producer gets for his stuff. The farmer wants and demands absolutely nothing but adequate recognition and a square deal."

(This advertisement authorized by the Republican State Central Committee.)



The Dairy Herd and Pasture on Carl Johnson's Father's Farm Near Ironwood

Gogebic County Boy Wins Honors in Stock Judging Contest

(Continued from page 5)

boys and girls the farms began to assume a new aspect, but the work was not so spectacular. Old folks don't respond and move like young folks, but they were moving. Another year and more progress was noted on the farms while the boys' and girls' clubs remained up to standard in work and membership.

Along last spring word was sent out from the Upper Peninsula Experiment Station in Alger County, that at the farmers' annual round-up and demonstration a boys' live stock judging contest would be conducted. Immediately County Agent Gunderson took notice and passed the word along to his boys. Earlier in the spring he had organized a junior pure bred live stock association, several members had purchased pure bred heifers, and there had been inculcated keen interest in better live stock.

A little later Prof. J. A. Waldron, of M. A. C., organized some cow-testing associations in Gogebic County, and conducted several live stock judging demonstrations. All members of the boys' association attended each of these demonstrations.

In July A. G. Kettunen, assistant state club leader, visited Gogebic County, and urged the boys to form a live stock judging team to compete at the Round-up, at Chatham, August 11 and 12.

The original plan was for all the

boys to take special training and the three best would represent the county at the contest. This plan was not practical because of certain conditions but Clarence Frederickson, president of the association; Luther Olson, vice president; Leonard Nylund, secretary and Onnie Kangas, treasurer, entered training. An unfortunate injury prevented Onnie Kangas from continuing

the work, and Carl Johnson and Walter Johnson were enrolled.

The training was under the direction of County Agent Gunderson. Schools were held on various farms throughout the county in order to give the boys the widest range of experience, with more frequent meetings on the farms of Henry Nylund and Chas. J. Olson, in Ironwood township and L. J. Anderson, in Bessemer township. Most of the time was given to judging Holstein and Guernsey cattle, but allowances were made for the

study and judging of sheep and hogs.

When the date of the Round-up came the boys felt sure of their ability to enter the contest. At the last minute it was learned that Clarence Frederickson could not go because of an important position he had just accepted, and Leonard Nylund, Carl Johnson and Luther Olson were selected to represent the county. Then a most serious difficulty arose. The boys had no way or money to make the long trip to Chatham. County



Little Miss Helmi Nevala. Winner of First Pig Prize at the Gogebic Co. Fair



The Gogebic County Team Which Took First Prize at the Chatham Round-up. Winning a Free Trip to the Michigan State Fair.

Ant Gunderson had arranged to take some farmers with him in his automobile, but when the predicament of the boys was presented, he promptly cancelled the farmers' reservation and took the boys.

The Gogebic team was pitted against all other county teams. The team won the team prize, a trip to the State Fair at Detroit with all expenses paid, the privilege of entering the state contest to gain the honor of being sent to the International Live Stock Exposition and the National Dairy Show, the International being the big one, as the winner in the boys' contest at that great exposition would gain the honor of representing the United States in world competition in London.

Young Johnson captured the leading prize at the Round-up for judging live cattle—a fine registered Holstein year calf valued at \$200.

The Gogebic team returned home proud and jubilant, but not so proud as their county agent, and all the citizens of Gogebic County for that matter. The boys lost no time getting ready to live stock judging school and putting themselves for the big contest at the State Fair.

When it came time to leave for Detroit, the boys started out with the same spirit and confidence that had possessed them when they went to Ham. At Detroit the big event occurred. The boys from Gogebic County ran away with the boys from Northern Michigan, boys who had been brought up with fine live stock and had been schooled almost from infancy.

Carl Johnson walked away with the highest score and the honor of representing the state of Michigan at the International, with all expenses paid. He was also crowned with a state championship. Leonard Nylund won the place of alternate at the National Dairy Show.

Still another of Gunderson's boys went to the State Fair on honors. He was Fred Olson, of Bessemer, who was awarded the trip because of his un-



County Agent Gunderson and His Mount, Which He Prefers to an Automobile when Long Trips Are Not to Be Made, and in the Winter Time When Going with a Car Is Difficult.

usual scholarship in agricultural matters.

After the State Fair there remained one more unusual thing to happen in Gogebic County before the close of the season. At the Gogebic County fair little Miss Helmi Nevala, daughter of Mr. and Mrs. Walter Nevala, of Ironwood township, won the first pig club prize at the county fair. Little Helmi is the youngest member of any of the live stock clubs in the county, and obtained the money for the purchase of the pig from "The Farm Boys' and

Girls' Leader." She has been an active member of a Garden Club and a Sewing Club, and lastly, decided to join the Pig Club when she managed to get funds to buy a pig. Her unusual success has led to an active movement to enlist more girls in live stock club work.

In this manner, through the boys and girls, Gogebic County is gradually but surely being piloted along new lines of industry, agriculture and live stock production, the greatest of all industries. Far-seeing business men

realize the necessity of supplementing the mining industry with an auxiliary even more powerful than iron ore production or the lumbering that had preceded mining. There has been a tremendous awakening as to the possibilities of the thousands of acres of cut-over land which lie idle throughout the county—most of it good soil adaptable to diversified farming and all of it suitable for live stock production.

The boys and girls of Gogebic County are paving the way for tremendous development along agricultural lines, blazing the path to permanent prosperity.

Carl Johnson, considered an ordinary farm boy two months ago, has sprung into the leadership, and there are hundreds of boys and girls in Gogebic County that will follow the standard he has set and emulate his conduct. All Gogebic County is proud of him, mining company officials and miners, business men and bankers, farm women and city women, and everybody is plugging the best they know how for their boy to win at the International. The success of young Johnson has rounded out a splendid spirit of co-operation throughout the county, has focused interest in agriculture and live stock, and has done more for Gogebic County than it has for himself.

And then it pays to have a mighty good agricultural agent. Gogebic County has one, and his name is C. E. Gunderson.

LET YOUR WIVES HELP PLAN

You men who are planning on building new homes should remember to let your wives help in the planning. They are the ones who have to live in them and it is they who have to care for them after they are completed.

The average farmer of today has all the modern equipment for his farm but the average farm woman still carries water from the well. Why not pipe it into the house for her, John?

MILWAUKEE STOCK YARDS

The Competitive Live Stock Market of Wisconsin

DAILY CAPACITY: 15,000 HOGS, 2,000 CATTLE, 2,000 SHEEP, 7,000 CALVES

All Classes of Live Stock in Active Competitive Demand. Chicago Market Prices Obtainable at a Considerable Saving in Transportation, Yardage and Selling Expense.

Receipts for Year 1919 (Our Banner Year) 584,555 Hogs, 107,564 Cattle, 290,586 Calves, 64,822 Sheep, 16,119 Cars

90 per cent of the Wisconsin Live Stock Shipments billed to Chicago pass through Milwaukee. *Why not patronize the Milwaukee Market?* We have the facilities and have not advanced the price for the handling of shipments, yardage or dockage. Dairy cattle and calves a specialty

Unexcelled Market for Milkers and Springers

MILWAUKEE STOCK YARDS COMPANY

Correspondence Solicited

MILWAUKEE, WISCONSIN

Fifty Counties in Upper Michigan Have Millions of Acres of Idle Lands

CLOVERLAND is now on the map as the greatest live stock and dairy district in the United States today—it is the last frontier of America. Are you going to grasp the opportunity now or wait until prices begin advancing and eventually become prohibitive for the homeseeker or careful investor?

**Inquire Now;
Prices Are Low**

The Public Domain Commission of Michigan

WILLIAM KELLY, *Chairman*, Member Board of Control, College of Mines;
JUNIOUS E. BEAL, Board of Regents, University of Michigan;
THOMAS E. JOHNSON, Superintendent of Public Instruction;
COLEMAN C. VAUGHAN, Secretary of State; ORAMEL B. FULLER, Auditor General;
WILLIAM H. WALLACE, State Board of Agriculture;
GEORGE L. LUSK, Secretary Commission and Commissioner of Immigration.

The Keweenaw Land Association Ltd.

— OFFERS —

Cutover Lands

in Chippewa, Dickinson,
Iron, Gogebic, Ontonagon
and Houghton Counties
in the Upper Peninsula of
Michigan in tracts to suit

Clay loam, sandy clay loam, sand loam and sand
soils at \$5.00 to \$15.00 per acre.
Generally well watered.

J.M. LONGYEAR, *Agent*, Marquette, Mich.
D. S. DEAN, *Treas.*, 87 Milk St., Boston, Mass.

Build Roads Like the Romans

(Continued from page 7)

approach great commercial centers, the numbers should be increased to every third mile, to every second mile and so on down to every road. In densely settled states such as New York, Massachusetts, Connecticut and New Jersey practically every road now in existence should be hard-surfaced over proper foundation to carry express traffic. Rome was over 700 years of age when it began to build roads extensively. This is a young republic. The first active colonists arrived 300 years ago. Rome was 200 years perfecting her system.

The first railroad in the United States was built in 1830. By 1869 the trans-continental journey by rail became possible and with our present mileage of railroads, we would be over-built were our population per square mile no denser than the Roman Empire and were our railroad road-bed mileage only single track. Railroad mileage figures are deceiving as to matters of transportation miles as they include double tracks, switches and railroad yards in their total mileage. The railroads were built by private enterprise and owing to the eagerness of individuals to become rich, were not laid out with a view to increase transportation facilities and add to traffic equitably. Their promoters paralleled the water courses and paralyzed the waterways by competing for their business. The competition proved most disastrous to inland steam boat travel and snuffed out the already constructed canals. Such would not have been the Roman method. Each road laid down by the Romans was to increase and to improve communications throughout the empire and not to squash rivals in business.

Being a republic and not an empire has its disadvantages. One of them is that our roads are built with a selfish object in view. A second is, that we cannot employ our soldiery in times of peace on manual labor. A third is, that we have no prisoners-of-war. A fourth, national prejudices. The only prisoners we have are criminals and the sight of them working on roads is offensive to our aesthetic tastes. We have no slaves except the "middle classes," who are in these times of high cost of living being gradually "milked" by the upper and nether, the autocrats of wealth and the autocrats of labor. Had the railroads been laid down to assist the waterways instead of to ruin them, we should not have been "up against" the present congestion in freight traffic. Vessels would have still plied upon the Ohio and Mississippi and barges would have been passing through the canals in sufficient numbers to relieve the over-crowded rail tracks of freight of low class about which there is no haste except in ordering the material and getting it started.

We should avoid this mistake in the

construction of state and national roads for automobile service. The railroads and waterways should be utilized as trunk lines and the first "roads built as Rome built," should be "feeders," not national nor state highways for pleasure purposes but genuine freight carriers. These roads should be commenced in freight centers and extended so as to tap natural resources at present handicapped by the lack of railroad or waterway facilities. The first built should race into the territories now congested the second into the fertile territories which ought next to be opened up for productive enterprise. None should be constructed primarily aimed at relieving the railroads which is another term for competing with the railroad. We should aim not to produce an enormous mileage but roads which will stand up for the least possible expense of repair. Better spend \$50,000 on two miles that will stand up than \$60,000 on twenty which will be frosts of one winter will up-heave. Through states like Illinois and Wisconsin, drainage is of primary importance; through the mountains, grade and commodious turnings proper banks. Foundations everywhere.

From the present condition of water traffic, it would seem almost foolish to construct roads running to river ports. Yet there must be a beginning somewhere to divert freight now moving by rail which should always have moved by water. Perhaps the best way to insure resumption of waterways would be to make a river and harbor bill cover also local freight motor roads running perpendicular to natural water courses which have the depth and capacity for steamers carrying freight.

The time to begin building is now. The length of time to complete the system is immaterial to the present generation. For, if the roads, as the must, prove to be a good thing, succeeding generations will extend them as needed. How they can be built with our prejudices against immigration, is a horse of another color. Most of our railroad road-beds have been constructed by immigrants freshly arrived at low rates of wages. There is no such animal now. The railroad utilized Chinese and Italian labor contracted for abroad and not after having passed through the fine tomb of an immigration bureau. Europe and Asia have surplus population which could be transported to advantage to themselves and to us. Most Americans would consider it an indignity to the flag to ask the soldiers to do the work. They are national defenders entitled to wear a halo around their heads and not to carry shovels and pick in their hands. We have become so tender of convicts and occupants of poor houses, not in any way intending to cast a slur upon the unfortunate, that our prisons have be-

Choice Cut-Over Hardwood Lands

Especially adapted to grazing and general farming. Located on trunk line railways twelve hours from Chicago markets. For sale, in small or large lots, at reasonable prices, terms to suit purchasers. For particulars write

The Northwestern Cooperage & Lumber Co.

GLADSTONE, MICHIGAN

charitable institutions where patients are better treated than in the penitentiary. The stigma of the garb is a daily punishment inflicted upon an American criminal.

build these roads with free labor on an eight hour day basis, with prescriptive activities in all other business constructing material which we are moving over those roads, empty the factories and close the industries now profitably working, the road building laborer were paid an attractive remuneration. It is a easy matter for interested parties to say, well, let the state, county or city build the roads. That means, however, that each taxpayer must get a portion of the roads or pay for it in money an amount equal to the proportion which he could perform work over and above his usual proportion now limited to eight hours a day. The task would not be difficult if the government provided every man in the United States from the president down were willing to work in the road building division two hours of each day. Our tired business men, such as the bankers, the brokers, the lawyers, the students and the merchants would find plenty of recreation in out-door exercises of a constructive character. Quite as they now find in sitting upon their benches, carrying their golf bags, rolling hither and thither in touring cars. Every clerk, in every man in a sedentary position gain physical strength and receive vigor by putting in his two hours vacation on a road scraper or building surface blocks. To "build time built," we should bend all our energies to the task. An organization should be effected for that purpose which includes every one.

Who should pay the bill? We will be benefited by the roads when they are built by decreased cost of living, increased luxuries, by improved facilities of travel, by increased facilities of travel, by obtaining a broader view of our possibilities and a more intimate knowledge of the Golden Rule. Social conditions would not be removed but the hardy sons of toil would take care of them. A knowledge of the good things by personal acquaintance between the moneyed classes, the thinking classes and the working classes

would soften the harsh prejudices now existing in the minds of all three.

When Chicago found itself snowed under, two years since, every citizen realized that the task of shoveling the city out was more than the city government could accomplish. As soon as this permeated the community, all citizens, good and bad, "got busy" and we shoveled ourselves out in a few days' time. In all sections of the city, a more neighborly feeling arose by our working together on one "uncommon" task. In the neighborhood in which I live today all the college professors, students, butchers, bakers, druggists, janitors, clerks, chauffeurs, coal heavers, children and who now have a bowing acquaintance and stronger community ties brought about through what looked to us at the time as a calamity. We didn't spend our money. We worked and we had as much fun working as though we had idly sat at the window playing solitaire and bemoaning the inefficiency of our city government.

We, the people, must pay the bills for our highways. It matters not how we pay them, whether in money or in labor. An organization, however, must be made to direct operations. An engineer competent to handle great matters, greater even than the construction of a Panama Canal, must be at the head and make the plans. The road building department must have a business organization. As all men are accustomed to receiving and understanding their labor as measured in money, the work must be figured and the bills paid in money. The builders, call them laborers if you wish, must be organized, even drafted, no exemptions. There will be no necessity for moving great bodies of workmen hither and yon for the road in front of my house and the road in front of your house and all adjoining roads and alleys are yet unbuilt. The blocks to the north or the blocks to the south and the blocks to the east or the blocks to the west of us as now built are rapidly disintegrating.

Scarce a citizen but could work his average of two hours per day for the next two years within a radius of a half mile from home.

If we cannot have labor built roads, convict built roads, immigrant built roads or soldier built roads, it is possible to have people built roads. Let us build them and not "let George do it." Two thousand years from now the "barbarians" who may at that time have overrun the United States, can say, we have roads "built as the Americans built," and not as the Romans built.

It is estimated that the Vojvodine region, in northern Serbia, will have an exportable surplus of 3,834,534 bushels of wheat, 675,552 bushels of rye, 699,961 bushels of barley, 2,747,483 bushels of oats, and 15,473,930 bushels of Indian corn, according to a report received from the American consul at Belgrade.

The dairy and poultry section of the U. S. Bureau of Markets has examined a number of experimental shipments of eggs packed in cases containing newly patented fillers and flats. Some of these seem to possess considerable merit in reducing breakage in transit.

Celery, either raw or cooked, is excellent for people who have a gouty or rheumatic tendency.

A New Farm In a Proven Farming District Insures Success

Inquire About
Ontonagon County,
Michigan

Ontonagon County, Michigan

is an agricultural region sparsely populated with practical, successful farmers, who have had the advantage of a splendid clay-loam soil as the basis for farming. There are thousands of acres of this same type of cut-over land in Ontonagon County awaiting the settler, or big rancher. Most of the timber was taken off years ago, a greater portion of the land is open, and there is an abundance of clover and grass ready for range purposes, pasture and wild hay. The county's chief industry is agriculture, so you will be settling among farmers in Ontonagon County.

No Real Estate Game

The County Board of Supervisors of Ontonagon County are inviting you in this advertising space to inquire about their county, and they will give you official service in helping you find the location you want. Detail information may be had by addressing a letter or post card to

WILLIAM KROHN
County Clerk, Ontonagon County,
ONTONAGON, MICHIGAN

FARM LANDS

As a farmer myself, work a 20-acre farm each year, so I know what farming land is. I know what a farmer wants. I have a large acreage of unimproved farm land for sale and guarantee satisfaction.

Write to me.

J. W. Weston

Proprietor,

Oak Ridge Dairy
MAREFIELD, MICHIGAN

IRON PLATEN LUMBER COMPANY

MANUFACTURERS OF

NORTHERN HARDWOOD

IRON MOUNTAIN, MICH.

Upper Peninsula Cut-Over Lands

Suitable for Grazing or General Agricultural Purposes

FOR SALE

in Alger, Chippewa, Gogebic, Luce,
Mackinac and Schoolcraft Counties

THE Northern Peninsula of Michigan is the best Livestock and Dairy country in the United States, if not in the world. It can care for 8,000,000 sheep and 1,000,000 head of cattle.

For information write

LAND DEPARTMENT, Charcoal Iron Company of America
MARQUETTE, MICHIGAN

Cloverland Bargains

RATE: Seven Cents a Word

Copy for the Cloverland Bargains column must be in the office not later than the fifteenth of month preceeding publication. Address all want ads to the CLOVERLAND MAGAZINE, Cloverland Bargains Dept., Menominee, Michigan

HONEY—Best Michigan clover. Ten-pound pail parcel post, \$3.90; five-pound pail, \$2. Cash or C. O. D. B. F. Kindig, East Lansing, Mich.

A WONDERFUL BARGAIN—680-Acre tract of choice cut-over land, clay soil, free from stones and very easily cleared, a few miles north Ewen, Ontonagon County, Michigan. Must sell at once regardless of price. H. Lilliquist, Ironwood, Michigan.

WANTED—Position as working manager with someone on large tract of land to be developed into a live stock farm. Have had an agricultural college training and life-time experience on large live stock and grain farms. Prefer to work on salary and percentage basis. Will invest some in good proposition. Best of references. Address, Box 84, care Cloverland Magazine.

WANTED—Position as farm manager or tenant on good farm. Have had considerable farm experience and can take care of dairy, cattle, horses and pigs. Have one large boy and three smaller boys—a family of wife and five children, all experienced in large garden work and some farming. Write at once. William Pittsley, Carter, Wisconsin.

FARMS WANTED—To sell your real estate, business or patent quickly for cash, write Northwestern Business Agency, Minneapolis, Minn.

SHEEP for Cloverland farmers. Will place ewes on shares with reliable farmers and give you an opportunity to start in the sheep business and at the same time make money. If you want to buy sheep, write us for prices. Can arrange satisfactory terms. Cheever Buckbee, Pres. Cloverland Sheep Corp., 719 Ludington St., Escanaba, Mich.

IMPROVED FARM—100 acres, one-half mile of lake shore, good house, stone basement, mile from town on good road. 20 acres cleared, 40 acres fenced, quantity valuable cedar and birch, price includes crop, 10 tons potatoes, 40 of oats. \$6,500. Fred L. Brown, Mercer, Wis.

WANT TO HEAR from party having farm for sale, give particulars and lowest price. John J. Black, 177th St., Chippewa Falls, Wis.

FREE Wisconsin Bulletins—Soil, climate and crops. Immigration Bureau, Wis. Dept. of Agriculture, Capitol 5, Madison, Wis.

OCONTO COUNTY, WISCONSIN—The Garden Spot of the Universe. If at all interested you should at once become acquainted either by way of a visit in person or correspondence with me relative to my most unexcelled bargains of either improved or unimproved hardwood timber farm lands. The best quality of productive clay loam soil with excellent climate conditions produces unfailing big crops of diversified grains, alfalfa, clover, sugar beets, potatoes, fruits. Dairying very highly developed, the best of all room environments by way of church, school, cheese factory, grain and live stock markets, improved farms immediate to hand. At bargain prices thereupon. If interested better act at once for prices are destined to inbalance in value rapidly. Charles A. Best, Oconto, Wis.

LANDS FOR MIXED FARMING AND GRAZING—In Marquette and Alger County, Mich. Cut-over Hardwood Timber Lands, suitable for General or Special Farming, Stock Raising, etc. Excellent Water. Soil of Rich Sandy Loam. Exceptionally Liberal Terms. Also some Choice Tracts in Antrim and Emmet County. Write at once for our Beautiful Illustrated Booklet, Jackson & Trindle, Inc., 503 Niagara Life Bldg., Buffalo, N. Y.

CLAY BOTTOM LANDS FOR SALE—In Mackinac and Chippewa Counties, suitable for grazing purposes. Can be bought on partial payment plan. Write Wilwin Company Limited, Wilwin, Mich., for particulars.

TWO MICHIGAN BARGAINS—80 acres. House, barn, clearing. Near Paynesville. \$1,250; \$250 down. 80 acres near Ewen. \$1,200; \$200 cash. Both on roads. Good land. Wm. Hardy, owner, Waukesha, Wisconsin.

FOR SALE—3,500 acres in one block. Seven miles north of Oconto. A low price will be accepted for the whole tract. W. H. Grunert, Green Bay, Wis.

A FINE FARM FOR SALE—280 Acres, one-half mile west of Carney, Michigan, which has good schools and a creamery. 150 Acres of this land is cleared; has a good house and hay barn and small orchard, plenty of running water all the year. Uncleared land is well seeded to grass; the soil is clay loam. There is not an acre of poor land in the farm. Easy terms. Address Box 55, 1/2 Cloverland Magazine.

HAY—Write or wire us whenever in need of Clover or Timothy Hay, also Straw, in carload lots. Dafter Hay & Grain Co., Dafter, Michigan.

FOR SALE—250,000 acres of unimproved cut-over lands in tracts to suit purchasers. Prices \$5 to \$15 an acre, terms reasonable. Address J. M. Longyear, Marquette, Mich.

FOR SALE—Choice cut-over hardwood lands, especially adapted to grazing and general farming. Small or large tracts at reasonable prices. Terms to suit purchaser. Northwestern Cooperage & Lumber Co., Gladstone, Mich.

FOR SALE—2,000 Acres land, in one block. Excellent soil. Well located. Price and terms attractive. Write Fred A. Roper, Menominee, Michigan.

FOR SALE—One fine 3,200 lb. team, bay geldings, 6 and 7 years old; gentle, experienced farm team, includes heavy farm harness in A-1 condition; price \$450. One grade cow, half Jersey half Guernsey, 8 years old, gentle as a lamb, milks 14 qts. when fresh, freshens in July; price \$150. One 1918 Ford touring car, excellent mechanical condition, tires new; price \$450. One western saddle pony, tall, bays, speedy, full of life, gentle; includes fine western saddle; price \$50. Ten tons A-1 clover hay; 25 tons clover and timothy mixed, baled at market price. Address, W. B. Wallace, Lakewood, Wis.

WANT TO HEAR from party having farm for sale, give particulars and lowest price. John J. Black, 177th St., Chippewa Falls, Wisconsin.

FOR SALE—1,000 head of breeding ewes, 2 to 5 years old. These sheep to be sold in lots to suit purchasers. Write for prices and further information. John Rachon, Kenton, Mich.

SHEEP FOR SALE—500 breeding ewes, 1 to 4 years old, average weight, this season. Lots to suit purchaser. \$10.00 per head. Teams if desired. Vail & Smith, Alvin, Wis.

FOR SALE—160 acres hardwood timber. C. W. Lightfoot, 910 Minn. Ave., Gladstone, Mich.

WAUKESHA FARM FOR SALE—56 acre highly improved farm in Waukesha Co., 14 miles from Milwaukee, 5 miles from Waukesha. Concrete road will pass farm. 10-Room brick house, hardwood floors and hot water heat, acetylene lighting system in house and barns. Basement barn 36x70, silo 12x26, all in good repair. This location suitable for general store, auto supply or hotel. Price \$14,000. Liberal terms to responsible parties. Address John Casper, R. 4, Waukesha, Wis.

80 A. half under plow, level, good road, R. F. D., phone, school on land, near cheese factory, milk route, no taxes, no stream, no stone, good buildings, best of soil, right price and easy terms. V. E. Conwell, Ladsymith, Wis.

HAMPSHIRE—Am offering my entire flock of breeding ewes, lambs and yearling rams. Also champion and prize price ewes of 1918 International. Write for catalog and special prices of carload lots. Mrs. Harley R. Emmons, Elsie, Mich.

WANTED TIMBER AND TIMBER LANDS—Prefer Michigan, Wisconsin and Minnesota. Will consider propositions anywhere. What have you to offer? Darwin B. Buell, Munising, Michigan.

FOR SALE—160-acre farm, 4 1/2 miles from Ogema, Wis. 50 acres cleared, 28 under cultivation, good water, well fenced, 1/2 mile to school and from trunk highway. For terms and price write owner, J. Jones, Phillips, Wis.

FOR SALE—Pure bred Guernsey bull, 2 1/2 years old; Sire, Mashier Rockingham; dam, Carlton Chosan. Price, \$200, or will exchange for breeding ewes. Address Herbert Burrows, Emmet P. O., Lake County, Minn.

FOR SALE—We have tracts of cut-over lands of all sizes for practical stockmen who want to succeed in a permanent manner. Consolidated Lumber Co., Manistique, Mich.

FOR SALE—Upper Peninsula cut-over lands suitable for grazing or general farming, in Alger, Chippewa, Gogebic, Luce, Mackinac and Schoecraft counties. For information write, Land Department, Charcoal Iron Company of America, Marquette, Michigan.

FOR SALE—We own 15,000 acres of cut-over lands in Dickinson, Baraga, Menominee, Iron and Gogebic counties, in the Upper Peninsula of Michigan; 20,000 acres in Forest and Florence counties, Wisconsin. Any size tract on easy terms. J. W. Wells Lumber Co., Menominee, Mich.

Ranches Ranges Farms

Any acreage you want

Any easy terms you want

Any way you want to buy

Any kind of land you want

The County Board of Supervisors of Iron County, Wisconsin, wants practical stockmen to take up large ranches in their county, and will aid them in locating and financing.

The County Board of Supervisors of Iron County, Wisconsin, wants experienced farmers to take up small or large acreages of the best hardwood land in the cut-over country, and develop them into paying live stock farms. The Board will help them find a good location close to local markets, on good roads and with railroad facilities.

Ranches \$10 An Acre,
Farm Lands, \$10 to \$20 An Acre,
Ranges Free for Season.

DANIEL REID

Chairman County Board of Supervisors,

HURLEY, WISCONSIN

Excellent Farming and Grazing

LANDS

For Sale in Alger, Marquette, Luce and Chippewa Counties, Michigan

Cut-over Hardwood Lands. Good Soil. Fine Water.
Accessible by Railroads and Good Highways.
Near Settled Communities.

Prices \$7.50 per acre
and up — Easy Terms

THE CLEVELAND-CLIFFS IRON COMPANY
Land Department NEGAUNEE, MICH.



General Motors Trucks

A PRODUCT OF
THE GENERAL MOTORS CORPORATION

Built in All Sizes from $\frac{3}{4}$ -1 Ton to 5 Ton Capacity



At West Allis, Wis.

A $\frac{3}{4}$ -1 ton GMC in ambulance service.

This model is the standard $\frac{3}{4}$ -1 ton truck of the United States Army.

Thousands were in use in France and this country during the world war.

The men who were in the service know of the wonderful record this GMC made. Ask them.

At Milwaukee, Wis.

A $\frac{3}{4}$ -1 ton GMC used in furniture delivery.

This truck operates over a fifty-mile radius around Milwaukee and thus opens up a big field of new business.

This Model 16 GMC is deserving of its title, "America's Standard One-ton Truck."



These Cloverland Dealers will be glad to tell you about GMC Motor Trucks

Union Auto Co., Eau Claire, Wis.
Elsen & Philips, La Crosse, Wis.
Service Sales Co., Green Bay, Wis.
A. G. Jennings Motor Sales, New London, Wis.
Highway Service Garage, Marathon, Wis.
J. T. McCann Co., Appleton, Wis.
Cloverland Garage & Machine Works, Manitowish, Mich.

Merrill-Buick Co., Merrill, Wis.
A. C. Homan Auto Co., Menasha, Wis.
Hathaway-Buick Co., Oshkosh, Wis.
Munising Motor Co., Munising, Mich.
V. L. Lipsett, Pickford, Mich.
Austin Lipsett, Sault Ste. Marie, Mich.
Larson & Asplund, Ashland, Wis.

J. A. Rummele Auto Co., Manitowoc, Wis.
Raab Motor Co., Sheboygan, Wis.
Johnson Motor Co., Fond du Lac, Wis.
Auto Supply Co., Plymouth, Wis.
Farm Power & Equipment Co., Lancaster, Wis.
Graham & Pecard, Bessemer, Mich.
W. F. Beilke, Wausau, Wis.
Bingham Motors Co., Janesville, Wis.

OR WRITE TO

GENERAL MOTORS TRUCK COMPANY OF WISCONSIN : Milwaukee, Wis.

DISTRIBUTORS FOR WISCONSIN AND UPPER MICHIGAN

*So Easy—
Just Add Water!*

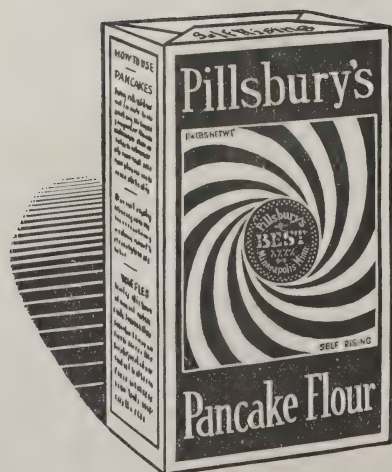


IT'S as easy as turning the faucet to make delicious pancakes with Pillsbury's Pancake Flour. Add only water—everything required, even the milk, is in the flour.

You'll wonder how you can make such pancakes with so little effort—pancakes so light and tender that you'll want to serve them the year 'round—summer as well as winter.

Always buy Pillsbury's Family of Foods—different in kind, but alike in quality. At your grocer's.

Pillsbury's Best Flour Pillsbury's Wheat Cereal
Pillsbury's Health Bran Pillsbury's Pancake Flour
Rye, Graham and Macaroni Flours



Pillsbury's FAMILY OF FOODS **Pancake Flour**

Pillsbury Flour Mills Company
MINNEAPOLIS, MINNESOTA



COVERLAND

MAGAZINE

10c the Copy

November, 1920



A Moonlight Night on St. Mary's River Near Cloverland's Sault Ste. Marie



¶ From the steaming machines, which thoroughly sterilize the dainty and absorbent texture of Northern Tissue, quickly the generous rolls are twice wrapped, that they may come to you hygienically perfect, fresh, and soft as fine chamois.

¶ There is nicety in simply asking for "Northern Tissue"—a topping improvement in bathroom papers. Don't be satisfied with just "toilet paper"—ask for "Northern Tissue." At your dealer's now. Made at Green Bay, Wisconsin, by the Northern Paper Mills—also manufacturers of remarkable paper towels.

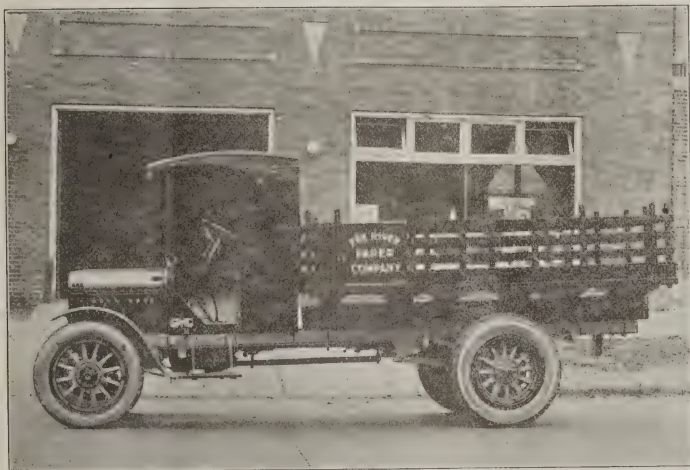




General Motors Trucks

A PRODUCT OF
THE GENERAL MOTORS CORPORATION

Built in All Sizes from 3/4-1 Ton to 5 Ton Capacity



At Appleton, Wis.

A 1 1/2 ton GMC in the service of the Fox River Paper Company.

With its big pneumatic tires it can operate every day in the year.

Dependability, low operating costs and long life are three GMC characteristics.

At Milwaukee, Wis.

One of five GMC's in U. S. Mail Service at Milwaukee.

Hundreds of GMC's are in Uncle Sam's Mail Service throughout the country.

The Wisconsin Highway Commission also use this model GMC, there being over 75 in the state's service.



These Cloverland Dealers will be glad to tell you about GMC Motor Trucks

Union Auto Co., Eau Claire, Wis.
Elsen & Philips, La Crosse, Wis.
Service Sales Co., Green Bay, Wis.
A. G. Jennings Motor Sales, New London, Wis.
Highway Service Garage, Marathon, Wis.
J. T. McCann Co., Appleton, Wis.
Cloverland Garage & Machine Works, Manitowish, Mich.

Merrill-Buick Co., Merrill, Wis.
A. C. Homan Auto Co., Menasha, Wis.
Hathaway-Buick Co., Oshkosh, Wis.
Munising Motor Co., Munising, Mich.
V. L. Lipsett, Pickford, Mich.
Austin Lipsett, Sault Ste. Marie, Mich.
Larson & Asplund, Ashland, Wis.

J. A. Rummele Auto Co., Manitowoc, Wis.
Rasb Motor Co., Sheboygan, Wis.
Johnson Motor Co., Fond du Lac, Wis.
Auto Supply Co., Plymouth, Wis.
Farm Power & Equipment Co., Lancaster, Wis.
Graham & Pecard, Bessemer, Mich.
W. F. Beilke, Wausau, Wis.
Bingham Motors Co., Janesville, Wis.

OR WRITE TO

GENERAL MOTORS TRUCK COMPANY OF WISCONSIN : Milwaukee, Wis.

DISTRIBUTORS FOR WISCONSIN AND UPPER MICHIGAN

LET US HELP YOU



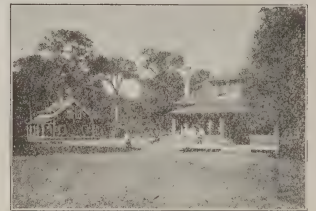
Plan Your Auto Trip



Secure A Ranch



Select A Plant Site



Locate A Summer Camp



Choose A Farm

CLOVERLAND

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for

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The UPPER PENINSULA DEVELOPMENT BUREAU
OF MICHIGAN

MARQUETTE

MICHIGAN

CLOVERLAND MAGAZINE

REGISTRATION OF TITLE APPLIED FOR TO U. S. PATENT OFFICE

Published Every Month at Menominee, Michigan

/OL. XV No. 3

MENOMINEE, MICHIGAN, NOVEMBER, 1920

\$1.00 A YEAR, 10c THE COPY

Marinette County's Record Breaking Land Clearing Demonstration

By LEO PATRICK COOK

MARINETTE COUNTY, Wis., undertook to clear 18,000 acres of land in 1920. And Marinette County has done just that thing. Larry F. Livingston, secretary and directing engineer of the Marinette County Land Clearing Association, gave the total on Oct. 12 as 8,109 acres cleared. He made his report as part of one of the biggest agricultural celebrations ever held in Wisconsin.

Marinette County naturally took some pride in the achievement. There was a time when clearing an acre of land was a back breaking job and the farmer who cleared an acre a year was doing pretty well. If three years ago Marinette County had announced that each of its 3,000 farmers had cleared one acre of land during the year, making the respectable total of 3,000 acres, the county would have felt justified in making almost as loud a boast as it made this year.

But things have changed. Up to twenty years ago, when the College of Agriculture of the University of Wisconsin took a hand in land clearing as a matter requiring engineering attention and skill, the methods of reclaiming stumps had not progressed very far nor very fast. The College of Agriculture decided the farmers needed stimulation and aid. Other co-operated, including the Dupont Powder Company. The first land clearing train in history was sent out through the former timber districts. Farmers were given object lessons in clearing land by the joint application of dynamite and stump pullers.

And still, after four years of this, land clearing had not been given quite the desired impetus.

What the College of Agriculture needed badly just at this critical stage was a campaign for reclamation was a concerted, practical application of the things it had been teaching by



An Entire Acre Cleared of Stumps in One Great Blast

means of its trains. Marinette County saw the point—probably heard a hint—and at once volunteered to make the effort. The Marinette County Land Clearing Association was organized late in 1919. It is an organization of farmers and businessmen, taking in people from every corner of the county. Prof. W. E. Morton, superintendent of the Stephenson Agricultural school at Marinette, is its executive head and Larry F. Livingston its man in charge of the work.

Larry Livingston right now is the foremost land clearing expert of the world, by right of ability and results, and also of inheritance. His brother, the late Carl Livingston, was the father of the land clearing movement, the originator of the land clearing train idea. When he died Larry took his place, then went to war. When he came back from France, a lieutenant of engineers, Marinette County was looking for a man with his abilities.

The Marinette County Land Clearing Association's campaign of education was an intensive one. Larry Livingston procured a portable moving picture machine with land clearing films. He showed these pictures in every schoolhouse and community center in the county throughout the winter. He organized the farmers, taught them the value of co-operative buying of dynamite, got them to agree to clear their quotas, six acres for each of the 3,000 farmers.

He set up the battle cry "18,000 acres in 1920" and imbued the farmers with his spirit.

As soon as the snow was gone there was established at Cedarville, a central

point in the county, the first land clearing school ever known. Here the farmers were taught to handle dynamite, to place it in the stump most advantageously, to use a stump puller, to brush land, to pile and burn stumps and dead and down timber.

Before the planting season of 1920 Marinette County had used seven carloads of dynamite. It was ordered in one lot, the biggest single order of land clearing explosives ever placed.

Land clearing became a passion with the farmers of Marinette County. They quit only when they had to get their crops in. They started anew right after the harvest. They are at it yet. The campaign has a momentum that probably will not expend its force for years to come.

The question, "Is 18,000 acres of new clearing something to blow and brag about?" In answer to that here are a few figures prepared by John Swenhardt, land clearing director for the College of Agriculture:

Eighteen thousand acres of land would keep all Wisconsin in potatoes for three months.

Would grow enough food for the cities of Milwaukee, Madison, Racine and Superior for one year.

Would pay the salary and expenses for the United States senate for 1919.

Would pay the expenses of the United States weather bureau for 1919 and leave a balance of \$500,000.

Would support 3,000 cows.

Would grow hay for 7,000 cows.

Would earn in dairy products \$1,240 a year for each of 300 families.

Supporting Mr. Swenhardt's statistics, 18,000 acres of land would grow

\$2,700,000 worth of potatoes at the 1919 price.

These figures constitute the cause of Marinette County's celebration. Columbus Day was chosen because, as was stated by the souvenir newspaper, "The Morning Blast," of the association, "Columbus never started anything he could not finish." That day 150 automobiles left Marinette in a train. A somewhat smaller number left the northern part of the county. Both were headed for Wausauke, where the celebration was to center, Wausauke being the headquarters of the Marinette County Land Clearing Association and known as "The land clearing county seat of Marinette County."

The larger train, from Marinette, was halted when nearing Wausauke, to witness a ditch blowing demonstration. Here a ditch 300 feet long was dug in one second by a single blast of dynamite.

At Wausauke the Wausauke Development Club and the Wausauke Woman's Club jointly served a free luncheon to all visitors, an ample, appetizing repast.

And then came the peak of the celebration. A selected acre with 125 stumps had been wired and charged for the occasion. Dean H. L. Russell of the College of Agriculture, the guest of honor and principal speaker, pressed a switch and the entire acre went up at once.

Immediately preceding the big blast there were speeches. Dean Russell in his speech said an important thing:

"When I was with your people last December I had great faith in your punch and pep; knew that you would do your best to win out in what you set about to accomplish, but I thought you had hitched your wagon to a star when you propounded the plan of re-deeming 18,000 acres in a single county in one year.

(Continued on page 30)



Dean Russell, University of Wisconsin Agricultural Department, Pressed the Button Which Fired the Blast.



Miss Sigrid Johnson, One of the Marinette Young Ladies Who Appeared in the "Movies" Made at the Demonstration

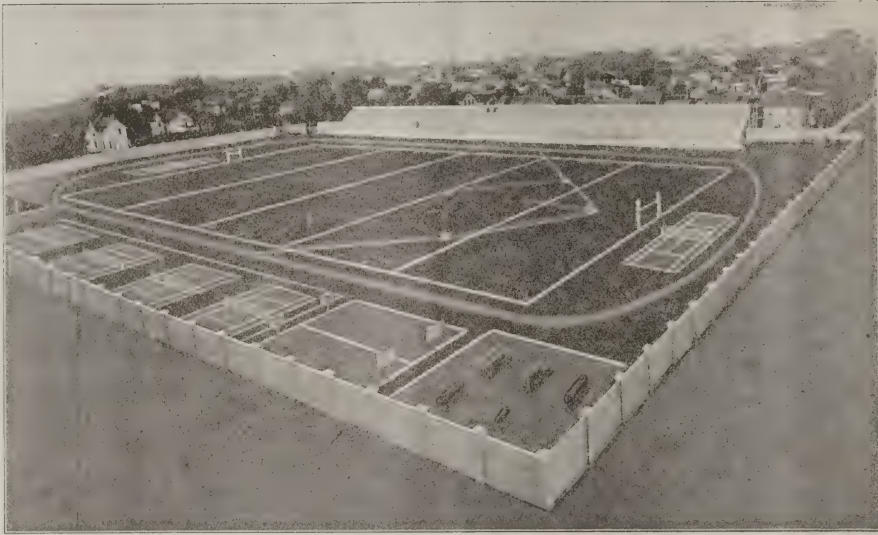
CLOVERLAND MAGAZINE

The Walton Blesch Field—A Magnificent Gift

By JOHN L. SILVERNALE

THE Board of Education of Menominee, Mich., at the beginning of the school year 1916-1917 approved a daily program for the Junior-Senior High school which comprises the grades from seven to twelve, inclusive, allowing seventy-five minutes every school day for physical education. In order to do this it was necessary to begin the morning session at 8 o'clock and with one hour and a half intermission at noon to run the school until 4 o'clock in the afternoon. The six and a half hours school day made it possible to have five seventy-five minute periods with five minutes intermissions between periods. All pupils in the Junior High school, grades seven, eight, and nine devote three periods to academic work, one period to industrial work or household arts, and one period to physical education. In the Senior High school physical education is elective.

The three important factors in the development of the adolescent child are study, work, and play. The physical education program in Menominee requires every pupil in the Junior High school and those electing the course in the Senior High school to be on the playground on the days that they are not in the gymnasium. The time is divided equally between the gymnasium and the playground. This means that, to do effective outdoor exercise requires ground enough to ac-



THE dedication of the Walton Blesch athletic field took place on the sunny afternoon of Sept. 23, 1920. The imposing grandstand was filled by throngs who realized the significance of the event.

This recognition was more than local. It was extensive enough to attract Hon. Marion L. Burton, president of the University of Michigan, whose address was the feature of the occasion itself.

President Burton, whose rare gift for combining idealism and common sense has made him an outstanding figure in the nation's educational circles, spoke in no empty phrases of what the Walton Blesch field means to the community and to Cloverland as a whole.

"To be a citizen," declared Dr. Burton, "the chief requirement is to allow yourself an education. That is why the Walton Blesch field was given to the children, that they may have the greater advantage of getting this education in the proper way."

commodate at least 100 boys or girls each school period of the day, every day in the week.

In the spring of 1917 the Board of Education realized that not enough playground space was afforded between the two high school buildings which occupy two city blocks with the street between them closed. A plan to buy a block and a half to the east of the high school campus and close three streets so as to make an unbroken campus of about four city blocks, was laid before the board. A three mill tax levy on the city's assessed valuation would have paid for the eighteen houses and lots wanted. But as we had just entered the world war, the board decided to delay action until after the war.

The startling revelation that over one-third of the young men of the country were physically unfit for military duty together with the fact that the health of the individual is as important in times of peace for his success in life as it is in times of war, tended to make the first aim or objective in the work of the schools the health of the pupil. Without health or physical fitness, the individual is doomed to disappointment in life no matter what else he may have. One important result of the war, therefore, is the added emphasis now given to physical education. Adequate playground facilities for outdoor work are as important if not more important than is the gymnasium with its equipment and its swimming pool.

In the spring of 1919 the board again gave consideration to its plan for en-

larging the school grounds. Mr. G. A. Blesch, president of the First National bank, for the past thirty-five years a resident of Menominee, and at one time president of the Board of Education, saw the opportunity of giving to the children of the city public schools for all time, the means for developing strong and active bodies with clean, alert minds, for the lessons learned on the playground under competent leadership are as important as any learned in the class rooms. His good wife shared with him in an interest in the welfare of the boys and girls of the city. Eight years before this, in June, 1911, their only child, Walton, a boy of 14, had been taken from them by the hand of death. That love and interest which they would have shared in their own child, in time, were given to the children of others.

At the annual school meeting in July, 1919, Mr. Blesch instructed his attorney to announce to the people that it would not be necessary for them to levy a tax to buy the block and a half wanted for the playground; that he would buy it and give it to the schools. All that he asked in return for the gift was that it be called the "Walton Blesch Field." To the proceeds from the sale of the eighteen houses on the ground, Mr. Blesch added a sum sufficient to grade the field, to lay the water mains, to provide for the plumbing, to build a cinder running track, four laps to the mile around the football field, to prepare the grounds for an open air gymnasium, two basketball courts, six tennis courts, four playground baseball dia-

monds, and a wading pool with sand piles on two sides of the pool for the little children to use in the summer time.

The taxpayers of the city, as an evidence of their appreciation of the gift, voted taxes sufficient to do the concrete work on the field. A reinforced concrete wall eight feet high with a waterproof stucco coating built entirely around the field gives the field a beautiful appearance. At the southeast corner and at the northeast corner are two ornamental iron gates flanked on each side by the four ticket offices. A grandstand of reinforced concrete construction, 360 feet long and 21 feet high at the rear, extends along the east wall. The pillars and walls of the grandstand have the same stucco finish as the wall of the field. The seat slabs and foot rests

are coated with a white waterproof paint. Cyprus wood seats painted green are bolted to steel supports imbedded in the concrete seat slabs. The grandstand will seat 3,000 people. The Board of Directors of the First National bank gave the beautiful memorial gate in the west wall facing the school campus. Over the gate is the inscription, "Walton Blesch Field." North and south the field is 485 feet long. East and west it is 348 feet wide.

The Board of Education will keep the field open the year around. During the winter months the football gridiron will be flooded for a skating rink. Electric arc lights have been so placed as to light the field in the evenings.

The Menominee Junior-Senior High school with its large, fully equipped gymnasium, its locker rooms and shower baths, its indoor swimming pool, and its Walton Blesch field has facilities equalled by few schools in the nation for the physical education of its boys and girls, and a complete curriculum has been instituted.



Reprinted by Courtesy of The Milwaukee Journal.

Mr. and Mrs. G. A. Blesch, of Menominee, the Donors.



Walton Blesch—In Memoriam

CLOVERLAND MAGAZINE

The Most Northern County in Wisconsin

By V. E. BRUBAKER

BAYFIELD COUNTY lies in the northern-most part of Wisconsin. It has three main types of soils—sandy loam of lighter and heavier kinds, hardwood loam, and heavy clay to clay loam. While this county is especially adapted to dairying along with clover, potatoes and small grains, it is also becoming widely known as a commercial berry and apple country.

If you should visit the fruit markets at Chicago, Milwaukee, Minneapolis, St. Paul, and Duluth, along the last of June and the first part of July, and make a request for Bayfield County berries, you will find that they are sold at a premium over berries coming from other parts of the country. Nine months out of ten, these berries ripen at a time when berries from other parts have all been marketed, therefore, affording better prices for the growers.

Strawberries are found on most every farm in the communities adjoining Washburn, Bayfield and Port Wing, Wisconsin. The Dunlap and Warfield varieties are mostly grown, both being highly flavored and firm, making them good shippers. A few years ago the rawberry acreage declined considerably on account of poor prices and scarcity of pickers, but recently the acreage has increased greatly. In visiting these communities one will find from one to three acres on each farm which grows berries. In the past the acreage ran much larger, making it very difficult to harvest the berries without loss. Now there are more farmers growing strawberries along with their dairy work, but not so many acres on each farm, making it much more profitable.

The Dunlap variety is very hardy and furnishes a great number of runners, so every grower can grow his own plants to plant his required acreage each year. These plants are set out early in May and cultivated throughout the season. They form a flat row about eight inches to fourteen inches wide and these rows are set out three feet apart, giving plenty of space for cultivation. Alsike clover is the greatest weed the strawberry growers have to contend with. The Everbearing strawberry is found almost every farm, but not as a commercial berry. It thrives exceptionally well and bears well each season until frost. The writer is still enjoying berries from his garden at this time, October 17th.

Raspberries are widely grown also. The Marbled, which is a red berry, is mostly grown. These are strong cane growers and also heavy bearers. The best successful growers plant the canes about four feet apart in rows, and keep them clean cultivated. The



Picking Montmorency Cherries on John Hauser's Farm, Bayfield County

canes are kept at a height of four to five feet. They are easily propagated from the young canes which come up so plentiful between the rows each season. Berries of all kinds grown here need not be mulched for winter protection.

The black-caps are grown to some extent, but do not yield so great as the reds. Many growers sell as much as \$400 to \$500 worth of raspberries from one acre. These berries are ready for the market about July 15th to 20th, and find a ready sale on the markets mentioned before.

The principal tree fruits grown here are apples, cherries and plums. Commercially, apples rank first, but cherries come a close second in importance. Apples are grown in larger acreage in the Bayfield and Port Wing communities than in other parts of our county. The main varieties grown here are the Duchess, Wealthy, Yellow Transparent, McIntosh, Alexander, Wolf River, Hibernia, Longfield, Snow, and N. W. Greening. There are some Delicious coming into bearing now. The Transcendent, Hyslop, Whitney, General Grant, Florence, Strawberry, Russet and Virginia crabapples are all grown extensively. The Gideon, McMahon, Dudley, Scott's Winter and many other varieties are found growing here, but our best commercial varieties to date are, Duchess, Wealthies, and Greenings. An entry of five plates of Wealthies took first prize at the Mid-West Horticulture Ex-

position, held at Des Moines, Iowa, in 1919. The most successful apple growers here practice clean cultivation, as the trees make better growth, cause less spread of diseases; such as apple scab and blotch. Very few codling moth have been noticed in this country and no San Jose scale. Just a few oyster-shell scale have been noticed, but has been easily controlled by lime and sulphur spray. The aphid are troublesome in some seasons, but are controlled by applying the nicotine spray.

The most harmful and economic disease we have here is the apple scab. We have had an exceptionally heavy apple crop this year, but many growers lost heavily from the scab, because they did not apply the Bordeaux spray at the right time. The apple acreage and crop has been steadily increasing. Each season brings forth a new commercial variety of apples of importance. Our orchards range from five acres to eighty acres in size.

The topography of the land laying next to Lake Superior is most favorable for apples and cherries. This district is favored for fruit owing to frost condition.

Cherries thrive exceptionally well here when the orchards are clean cultivated and thoroughly sprayed for diseases, such as shot-hole, fungus, etc. The Early Richmond, Montmorency and Morillas are the varieties grown here. The Montmorency variety is the commercial cherry most widely

grown. Cherries reach the market here about July 10th to 15th.

The Burbank, Surprise, and DeSota are the chief varieties of plums grown here. The season has given Bayfield County a great plum crop and they have found a ready market.

The Concord, Manmouth and several other varieties of grapes also mature here nearly every year.

At Washburn and Bayfield the fruit growers have a co-operative marketing association and therefore, market all their fruit through this method. The average price received for strawberries this season was \$3.05, and the average price for cherries was \$3.33. The average price for raspberries was \$3.36. No. 1 grade of apples brought an average of \$5.00 per barrel and \$2.00 per box to the grower. All the grading is done at the association, therefore giving good assurance that all fruits go to the market in good condition, and as labeled.

Reputations can be made quickly these days. It has not been many years since a choice fruit product from Bayfield was little known beyond her boundaries, much less asked for in the market in preference to other varieties.

Scarcely a season had elapsed, however, after our farmers turned their attention to the possibilities of the region as a producer of superior berries, before Bayfield strawberries were heading the market in the surrounding centers.

The organization of the fruit growers has done much to promote the development of our fruit interests. With the confidence that the association's ability to market the output gives to the individual farmer, Bayfield County's fruit production is making rapid strides, and bids fair to rival, in time, the dairy, potato and kindred interests throughout the region.

In the production of strawberries hereabouts, the chief retrogressive influence lies in the scarcity of pickers. Rather than gamble upon the chance of getting an overly large crop crated in good condition, our producers are limiting their strawberry plots to a few acres. Should labor conditions in the region experience a change for the better the strawberry acreage in Bayfield County would promptly expand.

The recent successes with fruit crops on small acreage in this locality have called attention to a possibility that may in time lead to a new era in Bayfield County. The fruit grower who cannot depend upon hired labor must limit his output, but even in so doing can find a profitable living. Indications point toward more farmers and smaller farms in the future.



Bayfield County's Famous Raspberries



C. T. Grover's Fine Orchard, Port Wing, Bayfield County

CLOVERLAND MAGAZINE

Flax, the Best Money-making Crop on New Land

By NORTON MATTOCKS

FLAX is the best money-making crop on new land for two reasons:

First, because it thrives better on virgin soil than on any other.

Second, it is the highest priced crop today.

The reasons are as follows: Flax is primarily a frontier crop — a "new

for paint, a large part of the world has been going without it but we can't let our buildings go on forever without paint, we simply must use it and continue to use it in increasing quantities. So much for relatively high prices continuing.

But what interests you most, Mr. Farmer, is in making those idle acres

Rye	12.62	"	"
Used hay	11.54	"	"
Oats	11.53	"	"

The average Minnesota flax yield has been nearly eleven bushels per acre in 1919, we (ourselves), raised on a fifty acre tract of grass land in Superior, Wis., a yield of nine bushels of seed and three-quarters of a ton of flax straw per acre (and we are not farmers although we are raising about 1,200 acres ourselves again this year). The University of Wisconsin Agricultural Experiment Station at Superior raised at the rate of eighteen bushels per acre in 1919 and former yields have been as high as twenty-two bush-

And one more point to think about. Rotating your crops is the only scientific method to follow nowadays, after you've raised a good flax crop then put it into something else the next year and put some of your other acres into flax. That will be giving all your land a change with the result of better returns on each crop you put in.

For best results flax should be planted early between May 1 to 15, although many splendid yields have been made as a catch crop on late spring breaking (June 1-15).

About 100 days is the usual time between planting and harvest. So you can see that even at the latter date would bring harvesting around the middle of September which in this territory is usually safe, but of course it always best to get it in as early as our climate will permit.

Like all other crops the better you prepare your land for the seed the larger will be your returns. So common sense will tell you to do this as well as you possibly can. Your land also should be well drained because most grain crops do not thrive in low, heavy, wet soil.

About one-half bushel of seed to the acre is the usual amount necessary for good results. Harvesting is done with the usual harvesting machinery.

Our flax fibre buyer is one of the best authorities on flax culture in this country, he having devoted all of his business life to the raising and handling of this grain, the grain above all grains that has paid for more new farms than any other and yet — the one crop about which apparently the average farmer knows the least about.

In the first place we will advise farmers who write to us what to do and how to do it — we will also let them the seed (the best cleaned seed procurable), for which they will pay after the crop is harvested. We will also pay them the highest price for all their flax straw, baled at the station and we will pay all freight charges thereon to Duluth.

land" product. It grows best on fresh land that contains nature's natural elements such as prairie and wooded soils that have not been disturbed by other crops, or land that has been permitted to thoroughly rest up and again regain its natural virtues.

Flax in reality is the king of profitable crops the first year on brushed-over and well-drained prairie or worn out pasture land, and not only does it make good cash returns but it is ideal for loosening, breaking and mellowing up the soil for other crops.

It is the highest-price crop today and will be for years to come because flax seed is in greatest demand the world over and also the lowest in production. There has been a world shortage ever since the war started.

The United States consumes 28,000,000 bushels annually, and we raised only about 8,000,000 bushel in 1919. Canada and Argentina supplying our shortage of 20,000,000 bushels, and even Canada's crop was largely diminished last year, and Russia, one of the largest producers, now produces nothing for export, and God alone knows when it will.

North Dakota, between 1902-1912, averaged 14,150,000 bushels yearly, but since the war its average has been only 3,000,000 bushels.

Between 1902-1917 our national flax acreage averaged 2,000,000 acres with a crop yield of about 18,000,000 bushels. So we will have to grow 1,000,000 acres more each year to be independent. But — we won't do it and as a result we will continue to have short crops and high prices, for how can it be otherwise? That's why flax will be the high priced crop.

With wheat, oats, corn and rye we eat about so much every year, but with flax from which we make linseed oil

of yours earn money for you and your family. You can make out of your farm only what your farm will produce, and that's determined by the number of producing acres. As your boys get old enough they help you work and earn more, so why not make more of that land work for you also, so you can earn more and consequently enjoy more of the good things in life?

Now the only way to do things is to go ahead and do them — and the surest way to make more money is to make that farm produce more. Plow every possible acre you can this fall — then pitch in and clear up more land this winter if you possibly can do it. Work the land up well, too, because the better your seed bed is the more bushels of flax you'll raise on each acre.

Read this, too, Mr. Farmer, an official statement of comparative average net cash prices for farm products per acre in North Dakota at December values for the years 1917, 1918, 1919:

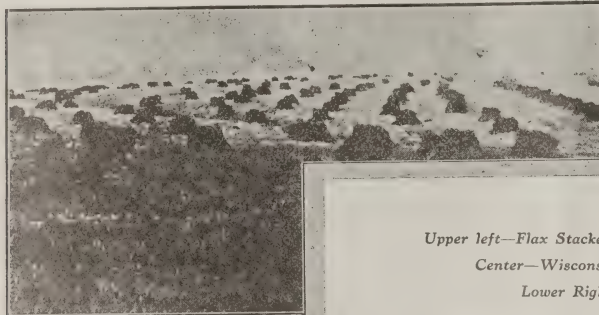
Crops—	(without the straw)
Flax	\$21.29 per acre
Wheat	18.02 " "
Tame hay	16.22 " "
Barley	13.09 " "

els, which merely proves what can be accomplished under proper methods of cultivation.

Think of what your non-productive acres might be earning if you only get busy and get your land in good shape for flax growing and don't forget on top of all you will get a good top notch price for all the flax straw you can possibly raise — a high cash price for your flax seed, the highest price for your flax straw and your land being put in fine shape for potatoes or oats or rye or some other food crops every year after.

GLAZED CORN FOR SILAGE

The question, "When is the best time to cut corn for silage," is again being frequently asked. The weight of experience of experiment stations at Minnesota University Farm, that corn is ready for the silo when the kernels are well dented or glazed. Analyses made by chemists have shown that the corn from an average acre cut at the glazing period contains 7,308 pounds of digestible matter against 4,220 pounds when the corn is cut at tasseling time, a difference nearly 75 per cent.



Upper left—Flax Stacked in the Field

Center—Wisconsin Flax in Bloom.

Lower Right—Threshing Flax Seed.



(Editor's Note—Mr. Mattocks is connected with the Klearflax Linen Rug Company of Duluth, the largest if not the only factory making fine linen rugs from flax, and a concern which has revolutionized the practical use of flax and created a home market for its raw production which will have a far-reaching effect in the development of Greater Cloverland. Other articles on both the cultivation and manufacture of flax will follow.)

CLOVERLAND MAGAZINE

A Cloverland Community Center's Success

By GEORGE A. McCARTNEY

THE Alger County Club, a comprehensive Michigan organization embracing every resident of the county without reference to any other qualification, and extending its welcome alike to rich and poor, to high and low, old and young, to oldest settler, newcomer, and transient visitors, is one of the unique institutions of Cloverland which has attracted nation-wide attention and comment. The club building, illustrated here, was a contribution to the city's advancement some six years ago, from William G. Mather, president of the Cleveland Cliffs Iron Company. It is built of stone, of beautifully chaste design, and generous dimensions and located upon a slight terrace overlooking Munising Bay, with the famed Pictured Rocks and Grand Island in the right and left background. The building faces Munising Avenue, a broad principal paved street. Originally designed for a Y. M. C. A. building, it was operated by that organization with a paid secretary for about two years, but it was found impracticable to maintain in so small a city as Munising an organization of that character that could be self-sustaining.

In 1917 the Alger County Club was conceived and put into operation under the direction of an experienced organizer and director. The county, through an appointed board of directors, assumed responsibility for its support.

This year with the new school law requirements for cities exceeding 5,000 population effective, it was imperative that the local public schools have playground and gymnasium facilities requiring the erection of new buildings and heavy expenditures. The County Club building and adjoining lots being admirably adapted for the purpose, the property was taken over by the school board, the pending resignation of the club director accepted, and the institution placed in charge of H. W. Raef, physical director of the public schools.

A sufficient plot of ground immediately adjoining the club building as this year been graded and surfaced for an outdoor gymnasium and playground. Equipment of the most complete nature is on hand and ready for installation.

During school hours the pupils of the city schools have precedence in the use of the rooms and equipment without charge. No dues or assessments are charged anyone. Non-residents, tourists and traveling men may enjoy its privileges and welcome. The latch string hangs out for all. Privileges such as the use of lockers, pool tables, bowling alleys, baths, etc., are subject to a maintenance charge and when the club rooms are used for entertainments, dances, receptions an admission charge is charged or the institution is



The Alger County Club Building Is Attractive and Commodious

otherwise reimbursed at a minimum cost.

The chief characteristic of the Alger County Club as a social institution is its democracy. In common with all other communities, Munising and Alger County has its class distinctions in many ways deterrent to the best and most adequate advancement. These the club ignores and by so doing in a large measure obliterates these lines. Rest and recreation rooms are a common ground where the man who toils with his hands may meet his neighbor whose employment is of another nature; and meeting, they may under-

While the County Club, as an official organization, has ceased to exist under the liberal regulations and requirements of the school board, its social community features continue. The County Club, as it is still known, performs a dual function, supplying requirements of the school in the way of physical exercise and at the same time acting as a community center of inestimable value. It furnishes suitable recreation facilities for old and young under the most favorable conditions possible, and supplies a need for a public meeting place in every commendable cause or endeavor. Rest rooms

For the community center was on the way long ago, but it is true that the events of the past four years served to teach us the possibilities of the plan.

Not every county may hope for such fortune as fell to the lot of Alger. But every county may achieve the results that Munising has.

It's the get-together idea that spells the success of the Alger County Club, and every town, every cross-roads in Cloverland has the making of such an organization.

Where there is a school building there is the means of a unit organization that can transform a mere group of families into a happy, fun-loving, progressive clan.

The new Cloverland spirit pops out from every line of Mr. McCartney's account. It is but the modern version of the old pioneer comradeship that made the early days in these parts endurable.

We haven't all the hardships today, but the old fire of friendliness still kindles.

We are getting well out of the idea that a school building is a place where young people only are allowed. It is the ideal convening point for the entire community. It should be as much utilized by the adults of the community as is the church.

What of your own locality? Are you taking advantage of your churches and your schools to the full extent? Have a dozen of your neighboring families never called a meeting at the old school for a session of merriment and discussion of the subjects that are on all lips these days? Are you losing sight entirely of the athletic opportunities that an organization offers?

It is astonishing what a little well-directed action along these lines will give rise to. You have probably been wishing for such results as the Alger County people have brought about, but have waited for someone to take the lead. Why, the leadership is nothing, after all. What it consists of need only be the determination to talk things over with the fellow next door.

Not until we achieve such an organization as Mr. McCartney portrays shall we be able to check the flow of our country lads into the cities. It is chiefly the lure of happy social life that draws them from the rural districts and the small communities. It is the most natural craving in the world, but one that far more happily realized were there means of securing it at home.

Life is too short to spend drudging month after month on one's own acres. Talk community club among your pleasant circle of neighbors and get on the band-wagon.



Club Billiard Room and Lobby



The Bowling Alleys Are Popular

stand and appreciate each other.

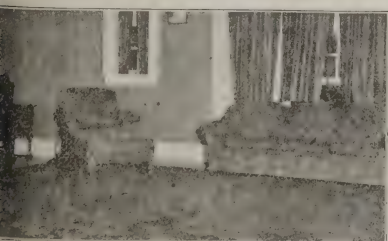
The club is the nucleus and fountain head of the athletic and recreational enterprises of Munising, both for schools and general public. At present the play grounds, electric lighted at night, is training ground for football squads, while the city bowlers are organizing for their usual winter tournament. Basketball teams are being organized and there will be no lack of other entertainments and morale-building features to attract during the winter months. As soon as practicable next spring the outdoor gymnasium, comprising the latest approved equipment, will be installed and open to the public new possibilities in athletic and social development.

and conveniences, shower baths and gymnasium facilities all play a part in the advancement of the bigger and better Munising that is developing—"The Pay-Roll Town"—where the pay-roll is a means, not the end.

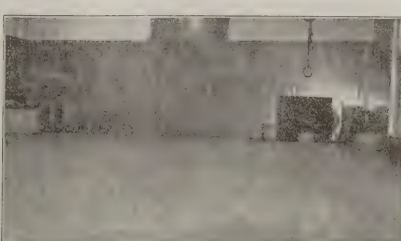
The Editor's Comment.

The ancient prejudice that branded the remote community as a lonely place in which to live has been pretty completely shattered.

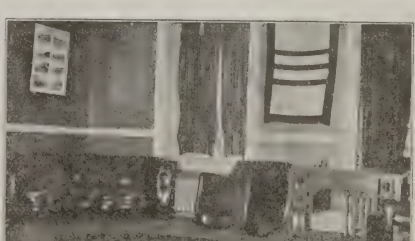
Did you believe, like most of us, that it was the war that set us to getting together for the common good? Mr. McCartney's interesting account of the remarkable Alger county center points out that the community idea is older than that.



A Corner of the Ladies' Rest Room



The Gymnasium, with Adjoining Bath Rooms



Men's Smoking and Reading Room

Cloverland MAGAZINE

The Dominant Agricultural Publication of the Northwest.

(Combined with The Northwestern Farmer, the Sugar Beet News, and the Northwesterner).
 Established 1903.

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THE ANDREWS PUBLICATIONS,
 315, 315, 317, 319 Quimby Avenue,
 Menominee, Michigan

Entered as second-class matter January 27, 1916, at the post office at Menominee, Michigan, under the Act of March 3, 1879.

Subscription price, postage paid, \$1.00 a year in advance.
 Advertising rates on application.

NOVEMBER, 1920

Better Service to Cloverland

THE publisher is pleased to announce an important development in the future plans for Cloverland Magazine, which will increase its scope and usefulness and broaden the already remarkably productive service given by the dominant agricultural journal of the great northwest to its three state territory.

Arrangements have been concluded whereby the staff of contributing editors has been enlarged to include representative men in Michigan, Wisconsin and Minnesota who are vigorously engaged in development work along agricultural and live stock lines, and whose names and standing carry with them the force for good which has made the Cloverland belt today the best and most honestly advertised section of the United States.

All indications point to 1921 as a year of remarkable opportunity in the Greater Cloverland territory. It will be the aim of Cloverland Magazine to meet the inquiries of high grade settlers and incoming farmers with information both useful and accurate from every part of this three state land of opportunity.

The record for 1920 is now being prepared and will shortly appear in detail in the magazine. It tells the story of accomplishments which have written a new record in the history of the new northwest. It is true that more development has taken place along worth while lines this year than ever before. With such an inspiration the loyal hustlers throughout Cloverland are planning for even greater things in 1921.

The plans for the future contemplate the continuance of the editorial control by Roger M. Andrews, who has been engaged in this work in Cloverland since he founded its first agricultural paper in 1903. Mr. Andrews is continuously engaged in telling the story of Cloverland's development before commercial clubs, county boards and farmers' meetings and will endeavor during the year to personally visit each county in the Cloverland section.

Articles dealing with development and agricultural matters in Wisconsin will be written by F. W. Luening, managing director of the Green Bay Association of Commerce; W. D. Juday of Rhineland, formerly county agent; Franklin E. Gritzmacher, publisher of the Marathon County Farm Journal, and Thomas Edmonds Doe, a working farmer in Douglas County, who is particularly well posted upon matters of interest to the new farmer and settler.

Similar stories bearing upon the situation in Northern Michigan will be written by L. D. Tucker of the Upper Peninsula Development Bureau, publicity department, and by D. L. Mc-

The Country Boy's Creed

I BELIEVE that the Country which God made is more beautiful than the City which man made; that life out of doors and in touch with the earth is the natural life of man. I believe that work is work wherever I find it, but that work with Nature is more inspiring than work with the most intricate machinery. I believe that the dignity of labor depends not on what you do, but on how you do it; that opportunity comes to a boy on the farm as often as to a boy in the city; that life is larger and freer and happier on the farm than in town; that my success depends not upon my location, but upon myself—not upon my dreams, but upon what I actually do—not upon luck, but upon pluck. I believe in working when you work, and in playing when you play, and in giving and demanding a square deal in every act of life.—Edwin Osgood Grover.

Millan in charge of the Chatham Experiment Station in Alger County.

The same sort of valuable information covering Northeastern Minnesota will come from the pens of Irving W. Lee, assistant secretary of the Duluth Commercial Club, and C. E. Munns, secretary of the Northwest Development Committee of the Minneapolis Civic and Commerce Association.

There will be in addition the signed articles by leading members of the state agricultural departments in Wisconsin, Minnesota and Michigan, and by the thoroughly posted county agricultural agents throughout the territory, who are doing such a splendid work in giving the farmer worth while co-operation.

The editor invites the readers of Cloverland Magazine to send in statements covering their own experience and pictures showing the development in which they are directly interested. We particularly like to have letters from our own readers and both grown-ups and children will find that their communications are given a welcome in our editorial department.

Cloverland Magazine is your magazine, and we cheerfully acknowledge the debt of gratitude we owe to so many loyal men and women in Cloverland who have made possible the success and growth of this magazine.

Red Calves in Black Breeds

WHY does a red calf occasionally appear in a black or black and white breed of cattle?

The inheritance of color is a practical breeding problem, declares L. J. Cole and Sarah V. H. Jones in a new bulletin just issued by the Wisconsin Experiment station on "The Occurrence of Red Calves in Black Breeds of Cattle." The scientist's discoveries will answer the breeder's questions about off color calves.

A wider knowledge of the underlying principles of heredity would prevent much loss to breeders and would work more directly to the final elimination of red or red-and-white animals, they believe.

"Color is an important factor in the live stock industry because breeders have come to accept certain colors as standard for certain breeds," says Mr. Cole. "The Guernsey breeder avoids animals with dark muzzles; breeders of Duroc Jersey swine dislike to see black spots on the belly and legs; a bay Percheron stallion would not generally be chosen to head a Percheron stud; a red-and-white calf appearing in a herd of purebred Holstein-Friesian cattle often brings a whole herd under suspicion. Yet the offending animal may be equal to the best in other respects, and, in spite of popular opinion to the contrary, his breeding may be equally pure. It is only the agreement to accept certain colors

as the right colors that makes the animal undesirable.

"The inheritance of black and red color in cattle, especially the appearance of red calves in breeds whose standard color is black, is a troublesome matter to the breeder. The appearance of such a calf leads to questioning the purity of the breeding, and misunderstanding and lawsuits may result in consequence. From the standpoint of heredity, however, the matter of color is relatively simple, and the application of certain definite scientific laws solves the problem for the breeder."

Alfalfa in Cloverland

ALFALFA is becoming known as the "magic plant." From a despised "weed" shortly after it was introduced in the southwest it has evolved into the greatest forage crop known and has proven its utility for a multitude of purposes. As pasture for sheep, cattle and hogs it is unequalled. As hay it has no equal, according to many authorities. As a fertilizer of the soil it has no superior because of its remarkable nitrogen gathering quality. So the stem, leaves, and roots have shown their superior value for certain use, and now comes the little blossoms as likely possessing the most honey and of the best quality of any plant known. Many expert beekeepers have found in alfalfa bloom the greatest source of nectar, a honey flow that has a wide spread over the season.

Alfalfa can be successfully grown in most any part of Cloverland. Failures or small crops have discouraged many Cloverland farmers from looking to alfalfa to produce a satisfactory yield. But this is not the fault of the alfalfa. When a seed bed is properly prepared and the seed is inoculated, there is no difficulty whatever in growing alfalfa in Cloverland. The secret is the seed bed and inoculation.

The farmer who adopts this plan will be repaid in magnificent profits, and once he grows a field of good alfalfa it will become an established crop on the farm in the regular crop rotation.

Farmers to Help Packers

MODIFICATION of the federal restrictions of the packing industry, which forced packers a few months ago to begin divorcing wholesaling of products other than meat and by-products from their business, will be asked by the Michigan State Farm Bureau. President J. R. Howard, of the American Farm Bureau Federation, has agreed to co-operate in attempts at Washington to secure modification of the restraining orders.

The reason for this action by the farmers, as set forth by the Michigan State Farm Bureau, is that considerable competition, which heretofore between the packers and other whole sale interests has been in vogue, has ended, and as a result prices paid growers for commodities have shrunk alarmingly. Prices of the manufacturers' product to the consumer, however, have held firm. The farm bureau wants the modifying order to be pertinent to the canning of fruits and vegetables, permitting the packers to continue these activities.

As an illustration of how this minimization has shrunk prices paid farmers, it is pointed out that canners in Michigan in past years have paid growers from 9 cents per pound to 13 cents per pound for sour cherries. This year the growers were paid between 5 cents and 8 cents, although costs of production, including labor, have increased considerably. In 1919, black raspberries brought the growers \$4.50 per case. This year, the prices range between \$3.25 and \$3.50. For plums in 1919, the growers were paid \$2.50 per bushel. This year they are being offered between 75 cents and \$1 per bushel.

According to the farm bureau, unless competition is encouraged so that fruit growers can market their crop and obtain somewhere near cost of production, Michigan soon will lose its place as a leader among the states producing small fruits.

A Menace to Live Stock

ABORTION constitutes one of the most serious problems now confronting the stock raising industry, is causing enormous losses among pure bred herds annually.

Investigators all over the United States are making strenuous effort to find a way by which it may be controlled.

The loss of the calf is serious enough, but that is not all. Following abortion in most cases the placental membranes are retained and the cow's health is at least temporarily impaired, and in some instances it may die from the absorption of decaying tissue.

It should be understood that the trouble is the direct result of introduction of a specific bacteria which causes an inflammation of the membranes of the fetus and the lining of the uterus of the mother. A partial separation takes place and the development of the young animal can proceed. It is then expelled undeveloped or in a condition which makes impossible for the calf to live.

Some process has been made in the prevention and treatment of the disease along the lines of disinfection of premises and the care of the animal.

The use of bacterins in certain cases has apparently given good results but should not be depended upon alone.—Veterinary Department, Colorado Agricultural College.

Planning Reforestry

WAYS and means for greater development agriculturally and reforestation of the hundreds of miles of the little known wonderland of Northern Michigan are being considered by the Michigan State Farm Bureau.

Approximately one-third of the total area of the state may be included in this territory that up to the present time has only been insignificantly developed. There is room there for thousands of good farms and for the production of hundreds of thousands of good timber.

Just how the Michigan State Farm Bureau can best assist in developing this territory will be determined largely by a report on agricultural and forestry conditions by Professor Sanford of the Forestry Department of the Michigan Agricultural College, who has been sent north by the State Farm Bureau.

However, regardless of what the report may show, the Farm Bureau will attempt to unify the developing activities of the many agencies now existing that up to the present time have had little or no ties of co-operation. This includes the State Public Domain Commission, Western, Eastern and Upper Peninsula Development Bureaus and numerous private agencies. Among the items of a general program of activities which the Farm Bureau will adopt are, perfection of better marketing methods of woodlot products, better fire control, reforestation, advancement of state credit for farm building, live stock, implements, etc., extensive soil survey and attraction of white colonists.

Put Skids Under Scrub

THE herds owned by members of forty-eight of Wisconsin's 115 testing associations have been completely rid of scrubs and grade butts. The associations qualifying for honor roll before July 1, 1920, were distributed over the following twenty-nine counties: Barron, Brown, Buffalo, Calumet, Clark, Dane, Dunn, Eau Claire, Forest, Grant, Green, Iowa, Jefferson, Kewaunee, La Crosse, Ladysburg, Marathon, Outagamie, Portage, Richland, Rock, Saint Croix, Shawano, Vilas, Walworth, Washington, Waukesha and Waupaca.

Rural schools educate children better than city schools can. The secret is that the rural school is closer to Nature, and Nature is the best teacher in all the faculty.

Revive Sorghum Syrup Industry in Wisconsin

By A SPECIAL CORRESPONDENT

"THE success of sorghum syrup making depends upon the use of proper machinery for extracting the juice and the further production of a high quality of syrup. The ordinary mill extracts only eight to ten pounds of sugar from 100 pounds of cane while in our work at the experiment station we obtain twenty-eight pounds of sugar. Made into a business and with an efficient mill, syrup making could be made profitable.

"But if sorghum syrup is to become widely popular care must be taken in the making process to insure an excellent quality of product. No one wants enough lime in the process, nor does any one care for the black heavy syrup which is the result of too much lime. In our experiments at the station we used a defecator heated with a steam coil. The juice was run into this, the exact amount of lime was added, testing with ordinary litmus paper, the juice was then heated and later the impurities were skimmed off the top.

"I remember a man named Powell at our sorghum conventions who used to bring in a syrup that was just like honey. Such syrup will sell and even at the present price of sugar, sorghum offers possibilities as a great crop for Wisconsin."

"Magnus Swenson, former Food Administrator for the State of Wisconsin, and member of the International Food Administration organized under the leadership of Herbert Hoover.

"Nineteen."

"Nineteen what?"

"Nineteen patches of sorghum between Jefferson Junction and Madison, counting only those on the north side of the river."

The conversation took place in a Madison bound day coach and stirred up not only a realization that Wisconsin had found a new sweetener, but recalled memories of the "old sorghum mill."

It was a happy idea of many of our fathers that a patch of sorghum every year was part of the farming business. We never gave the crop any special care, treating it as we did corn, until fall when the leaves were stripped from the stalks, the heads cut off, and the cane piled on the wagon to be taken to the mill, ten miles away. That meant that we did not have to go to school that day, a dinner away from home and a general good time, at the mill watching the crusher, the steam engine, and the cooking syrup.

There was always a lot of skimming off in the cooking process and occasional sampling which appealed particularly to the syrup hungry urchins. In spite of the fact that the fireman at the cookers threatened to use the small boys for firewood, and inspired in them a holy terror at times, the sugary sweet smell from the cookers always brought them back to rendezvous at the sorghum lasses pans.

Along in 1880 Wisconsin produced rather large quantities of syrup, but with the price of sugar very low sorghum growing fell into disfavor only to grow popular again with increased cost of sugar during the last few years.

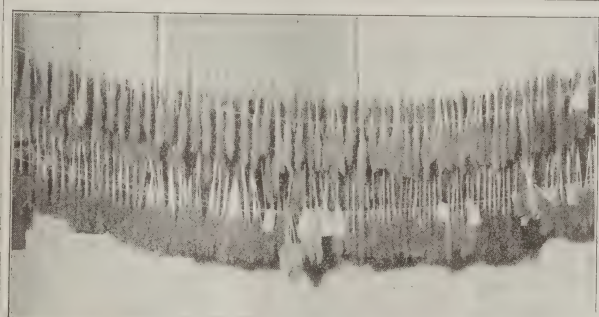
A. H. Wright of the College of Agriculture estimates that Wisconsin will make over 300,000 gallons of syrup this year worth more than \$500,000.

Mr. Wright objects to the name molasses because he says, "Sorghum syrup is not molasses, nor sorghum molasses, but just down right good sorghum syrup. It is so good that very little ever goes to market but is kept by the farmers themselves or sold to their neighbors in the immediate community, for eighth, quarter, and half acre plots do little more than supply the needs of one or two families during a year."

"However, the business has now progressed so that it may be considered as having reached a commercial scale," and he proved the statement by holding up two pictures. "Here's the old mill with its inefficient crusher which took out only 50 per cent of the juice and here's the new type of mill with unloading cranes, special vaporating pans, and crusher which extracts over 75 per cent of the sugar juice. The new mills take in every thing and there is no stripping of leaves or cutting of heads with the

waste left in the field. Everything is hauled to the factory, run through the crusher and the juice goes to the evaporating pans while the refuse or bagasse may be used for fuel or manure, or put into the silo to be fed to stock."

Sorghum can be grown anywhere dent corn matures, but the southwestern half of the state is most suitable and practically all of the sorghum is grown south of a line extending from Burnett to Racine County, although Portage, Waushara and Waupaca Counties are well adapted to sorghum growing. It is only the lake shore region north of Milwaukee, the red clay, around Lake Winnebago, and the extreme north and northeastern counties which are not suitable for the crop.



Sorghum Seed Should Be Cured as Carefully as Corn. If the Seed Heads Are Strung on Wire or Twine in a Warm, Well Ventilated Room, They Will Cure Properly, and High Germinating, Vigorous Seed Will Be Obtained.

"Sorghum needs no special soil," continued Mr. Wright, "although it matures earlier on sandy soils and thrives best on good corn soils. It should not be grown on weed-infested land because its slow growth in the spring will necessitate hoeing if it is to be kept free from weeds. Sorghum takes the same plant food from the soil as does corn and works into the rotation in a similar manner."

That sorghum can be made one of Wisconsin's profitable crops is shown by figures on a crop grown at the experiment station farm in 1881. Even at the old price of 8 cents a pound for sugar and 30 cents a gallon for syrup the crop returned more than \$100 an acre. Now, in 1920, if we consider the average yield of sorghum to be seventy-five gallons an acre which is less than half of what some growers obtain, the cost of making from 50 to 60 cents a gallon and the price a gallon is \$2, farmers still have an

ample opportunity to grow a crop which returns more than \$100 an acre.

"It is not our desire," concluded Mr. Wright, "to promote the industry rapidly but under present conditions it is certainly one which can be made of great value and usefulness to Wisconsin. There are over seventy-five sorghum mills in the state handling yearly an average of twenty-five acres each. Undoubtedly the superior quality of northern syrup will establish the product on the market on a firm substantial basis."

"Besides the application of modern manufacturing methods, Wisconsin's sorghum industry needs salesmanship," says A. W. Hopkins, editor of the Agricultural Experiment Station. "The sorghum syrup manufacturers of this state are capable of manufacturing a product which, if properly advertised, should be in great demand in the homes of this and other states. As it is, few indeed have the opportunity to provide themselves with even a very small supply of this delicious and palatable product. There has been manufactured only about enough for the immediate use of the grower himself and little or none for sale to prospective buyers."

"If we were making a product which met the requirements of a discriminating trade, package it attractively and then sold it we would find a good market and would develop a name for 'Made in Wisconsin' sorghum syrup which would exceed vastly the far famed cooking molasses."

"A Green Lake County manufacturer is already sensing this trade possibility. He is packing his product this



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Grand

D. S. BULLOCK GOES TO SOUTH AMERICA

The United States is to have a new representative in South America in the person of D. S. Bullock, former extension representative in animal husbandry in the University of Wisconsin, who recently has been appointed live stock commissioner to South America. He has taken up his work under the direction of the foreign section of the bureau of markets of the U. S. Department of Agriculture and expects to leave soon for his headquarters in Buenos Aires. This appointment is a part of the government's plans to promote the importation of live stock from this country by Uruguay, Paraguay, Brazil, Argentina, Chile and other stock-raising countries of South America. Mr. Bullock spent ten years in Chile in charge of the agricultural department of an industrial school, an experience that will prove of great value to him now.

(*Strangely enough Magnus Swenson, who served the state and nation so acceptably during the war, was one of the first men to interest himself in the study of sorghum. Shortly after graduating from the university, he set about investigating the sugar and sorghum making possibilities of the state. Out in the orchard on the university farm he "raised up" a sorghum syrup plant and with his crude equipment he never had occasion to modify his judgment, that sorghum growing had possibilities of developing into an industry if business and manufacturing principles were followed.—Editor.)

List of Winners in the Golden Cup Coffee Contest

The new name for Golden Cup Coffee will be announced as soon as copyright matters have received the approval of the Patent office. Names are not to be made public at this time, the company reserving the right to use any names for which prizes are awarded.

Report of the Three Contest Judges

This certifies that we have, after considering some **ten thousand** names submitted by contestants in the Golden Cup Coffee Contest, made the following prize awards:

- 1st PRIZE—\$50 in Gold—Miss Eva Byrans, Newberry, Michigan.
2nd PRIZE—\$25 in Gold—Max Kjerner, Rochester, Minnesota.
3rd PRIZE—\$15 in Gold—Rev. Harwood Sturtevant, Racine, Wisconsin.
4th PRIZE—\$10 in Gold—Mrs. William Ardent, Detroit Harbor, Wisconsin.

20 PRIZES of \$5 in Gold each to—

Chris Lundgard, Cornell, Michigan.
Art White, Marinette, Wisconsin.
Mrs. Charles Schroeder, Shawano, Wisconsin.
B. Stoneburner, Deer Ridge Farm, Crivitz, Wisconsin.
Leo Van, Green Bay, Wisconsin.
Mrs. Albert Glatius, Munising, Michigan.
F. J. Delys, De Pere, Wisconsin.
Mrs. K. L. Calvi, Iron Mountain, Michigan.
Miss Dorothy Lehmann, Morgan Park, Duluth, Minn.
Miss Affie White, Crandon, Wisconsin.
Miss Alice Curran, Lathrop, Michigan.
Miss D'Amour, Goodman, Wisconsin.
Mrs. R. W. Underwood, Jr., Vulcan, Michigan.
Miss Elsie Winter, Antigo, Wisconsin.
Mrs. A. Presse, Ishpeming, Michigan.
Thomas J. Bernardin, Bessemer, Michigan.
Miss Loretta Truckey, Garden, Michigan.
Mrs. H. Hansen, Ontonagon, Michigan.
Mrs. Fred Saunders, Marquette, Michigan.
Mrs. Hjalmar Erickson, Cloquet, Minnesota.

Honorable Mention

We also find that the following sent excellent suggestions which are entitled to Honorable Mention in this contest:

Mrs. Charles Minor, Sturgeon Bay, Wisconsin.
Miss Marie Anderson, Two Harbors, Minnesota.
Mrs. Albon Keikkila, Wakefield, Michigan.
Mrs. Etha Brewer, Laona, Wisconsin.
Mrs. F. Fontaine, Escanaba, Michigan.
Mrs. Phenes, Manistique, Michigan.
Miss Freda Thorpe, Stephenson, Michigan.
Harry Allard, Menominee, Michigan.

The prizes will be at once forwarded to the winners by the Carpenter Cook Company, Menominee, Michigan.

WILLIAM WEBB HARMON,
Cashier, Lumbermen's National Bank;
ROGER M. ANDREWS,
Publisher, Cloverland Magazine;
GEORGE W. ROWELL, JR.,
Lloyd Manufacturing Company;
Judges.

His Life Work in Cloverland

ONE of the best known and best beloved physicians in Michigan. Dr. Walter R. Hicks of Menominee, died suddenly on Sept. 26 of acute dilatation of the heart.

Dr. Hicks was born in 1865, a graduate of Michigan University of 1887



Dr. Walter R. Hicks

(followed by a year at Bellevue Hospital). He later took post graduate surgical courses in New York, Rochester and other surgical centers.

He was an active member of the American Medical Association and of the Michigan State, Menominee County, Upper Peninsula and Fox River Valley Medical Societies. He was past president of the three latter organizations.

Dr. Walter Hicks was a physician

and surgeon of unusual ability and a physician in much more than the practice of his profession, to which he gave a lifelong devotion of duty performed and service given with every ounce of his energy and without stint or sparing. He was a physician in the friendship relations which make life worth while, and the record will never be known of how far afield from the professional beaten path he went because he loved his fellow men.

Unselfish, courageous, hopeful and sympathetic, he carried with him every day the science of service with the science of medicine, and no better tribute can be paid to his life work, so suddenly cut down in its height of usefulness, than to express to his wife and children the potent fact that Menominee, in every phase and part of its life, feels today stricken in his loss and richer for his life.

An epitaph of love and tenderness is written in the hearts of every one within the broad field of his life work. As citizen, physician, friend and patriot he did with his might what his hand found to do, while in intimate circle of the home he was all that a husband and father can be to those he loves.

FARMERS TO USE WAR MATERIAL

THOUSANDS of dollars of war department equipment intended for final squelching of Germany will be used instead probably for the working of Michigan Farms. The American Farm Bureau Federation is negotiating with the U. S. War Department to buy hundreds of thousands of sets of harness, saddles, wagons, auto truck trailers, etc., for American farmers.

Indications are that an agreeable arrangement will be made with the department whereby Cloverland farmers may order these war supplies through their county farm bureaus, according to the state farm bureau. Samples of this equipment are expected to arrive soon in the state.

back again Los Angeles Limited

Effective November 14th

Here I am again—back in service—in plenty of time for your usual jaunt to California.

Now in less than three days from Chicago you find yourself in the land of sunshine, fruits and flowers.

Solid comfort all the way in a solid Pullman train—exclusively first class.

Drawing room, compartment and open section sleepers, buffet observation car, excellent dining car service all the way; also barber and valet. One of the world's premier trains; no extra fare.

Leaves North Western Terminal, Chicago, 7:00 P. M., every day. Leaves Omaha 8:50 A. M. Arrives Salt Lake City 1:15 P. M. (second day). Los Angeles 9:30 A. M. (third day). Here's another fine new train for you, too!

The Continental Limited. Leaves Chicago, every day 10:30 A. M. Leaves Omaha 1:25 A. M. Arrives Salt Lake City 8:20 A. M. (second day). Los Angeles 9:30 A. M. (third day). Standard drawing room, compartment, observation and tourist sleepers and coaches. Dining car service all the way through to Los Angeles.

California travel is heavy. Better make your reservations early.

For information ask—
Ticket Agent, C. & N. W. Ry.
E. G. Clay, Gen'l Agent
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221 Grand Avenue, Milwaukee
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**CHICAGO & NORTH WESTERN
UNION PACIFIC SALT LAKE ROUTE**

Thanksgiving Day "Fixings"

IN MANY homes there is only one pair of hands to prepare the Thanksgiving Day dinner, so this year possibly I may add a few suggestions or available menus which will help the one pair of hands out. It is usually "mother" who plans and gets the dinner, and the guests and relatives who really want to see something of her will find her less tired than usual after her exertion in the kitchen if a goodly part of the meal is prepared a few days before.

Fruit or spice cakes can be made several days ahead. Mince meat is better if made a week or two before used, if packed down in jars, and the lids kept on tight. If there is to be a salad the mayonnaise may be made several days ahead and put into bottles and corked tightly. Even some salads may be made twenty-four hours before hand. I have planned some menus with turkey and some without. Turkey is expensive again this year and there are many homes which will use a substitute, but these are many and just as good.

Thanksgiving Menus With Turkey.

Menu I.

Tomato bouillon Crisped crackers
Celery Salted almonds
Roast turkey
Cranberry Jelly Mashed white potatoes
Onions stuffed with celery and nuts
Curled celery
Fruit pudding Brandon hard sauce
Ice cream
Fancy cakes Nuts Raisins Fruit
Half cups of coffee
Crackers Cheese

Menu II.

Stuffed grapefruit Olives
Consomme with wafers
Roast turkey Cranberry jelly
Mashed potatoes
Sweet potato boats with apples
Rolls Butter
Celery and nut salad
Strawberry ice cream Pumpkin pie
Coffee Candy

Menu III.

Blue points on half shell
Bouillon
Roast turkey Cranberry ice
Giblet dressing
Turnips Mashed potatoes
Divinity salad
Fruit pudding
Ice cream
Coffee

Thanksgiving Menus Without Turkey.

Menu I.

Cream of oyster soup Celery
Roast goose Apple stuffing
Grilled sweet potatoes Creamed Carrots
Individual apple salad
Ice cream
Spice cakes

Coffee Mints

Menu II.

Clear chicken soup Pickles
Celery
Glazed sweetbreads
Baked chicken Cranberry conserve
Creamed silver onions Mashed potatoes
Squash
Vegetable and fruit salad
Plum pudding
Salted nuts Coffee

Menu III.

Cream of corn soup with bread sticks
Baked ham Glazed sweet potatoes
Spinach with cream sauce
Cabbage salad with mayonnaise
Cranberry sherbet Graham bread
Fruit cake
Coffee Candy

Below I am giving a few recipes for some of the dishes served on the different Thanksgiving menus. Some of the dishes are old standbys, such as the fruit puddings, fruit cakes, cranberry jelly, etc., while others are new and we are always glad to give new recipes when we know they are true and tried.

Fancy Thanksgiving Cookies.

$\frac{1}{2}$ cup shortening
1 cup sugar
 $\frac{1}{2}$ cup molasses
 $\frac{1}{2}$ cup sour milk
2 eggs
 $\frac{1}{2}$ teaspoon soda
 $1\frac{1}{2}$ teaspoons ginger
Flour enough to roll.

Heat the molasses to the boiling point and pour over the shortening. Cool mixture and add the well beaten eggs, then add the dry ingredients and a sufficient amount of flour to

COUNCIL MEATS

Better Meats That Cost Less
No Waste · No Ice Needed
Always Tender
Ready-Cooked To Perfection

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in our
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at Green Bay,
Wisconsin

Every Council Brand
Label
Advertises Cloverland

Ours is the largest
producing industry in
Cloverland today.
Make it yours, too.

Only pay for the meat you eat— not for the trimmings and waste

WHEN you pay sixty or seventy cents for a piece of meat, a goodly part of it is wasted because you can't eat all the meat you buy. There are the fat and bones and trimmings—all paid for at the price of meat—and only a little of the fat can be used, the rest is just a loss. Besides which, uncooked meat contains much water that is lost in cooking—but you've paid for the water at meat prices.

But there is a way to overcome that loss, which is 15% or 25% of what you spend on meat today.

And that is by buying ready-cooked, wholesome and delicious Council Meats. There are many varieties of Council Meats—Veal Loaf—Roast Beef—oh, a host of good meat dishes—all so easily prepared! Why you'll be just a few minutes fixing the meat course for breakfast, luncheon or dinner.

But the goodness and the ease of preparation are minor advantages compared to the real economy you will find, in buying ready-cooked Council Meats instead of meat you have to trim and cook.

Six Economical Meat Dishes

ROAST BEEF
For 5-70c

CORNEB BEEF HASH
For 5-70c

VIENNA STYLE
SAUSAGE
For 5-60c

SLICED DRIED BEEF
For 4-30c

POTTED HAM
For 5-80c

OVEN BAKED BEANS
For 4-25c



INDIAN PACKING CORPORATION
Consumers' Building, Chicago, Ill.

roll the mixture. Chill thoroughly. Put the dough on a well floured board and roll out one-eighth of an inch thick. Cut out with a turkey shaped tin cutter and bake in a quick oven. Outline with chocolate icing the turkey shape and indicate wings and feathers with white icing. The white icing can be put on to best advantage by using a pastry bag.

Stuffed Grapefruit.

Wash and thoroughly dry medium sized grapefruits and cut in halves crosswise. Separate the pulp from the bitter white skin and thick membrane with a sharp knife and remove seeds. Remove the pulp from the shell, cut in uniform pieces and combine with it small amounts of cubed orange pulp and green grapes seeded and cut in halves. Sweeten the mixture to taste and chill. Before serving refill the grapefruit shells with the fruit pulp. Garnish each filled shell with a Maraschino cherry.

This year of all years there is an over abundance of all fruits and vegetables, and all tables should be well filled. Nuts, candies, popcorn and fancy cookies should not be forgotten for the children and don't forget that it is a poor carver who doesn't save a choice piece of the meat for herself.

The Menominee River
Sugar Company began on
Oct. 11th its annual pro-
duction of beet sugar.

The beet growers are
given the advantage of
every rise in the sugar
market.



As Broad as World Agriculture

Organized and spread out like a great army, the International Harvester service organization reaches all places in the world where there is agriculture and stands guard over International farm machines and implements numbered by the million. Here in the United States, 92 large branch houses, directing and supplying over 15,000 local dealers, protect the owners of International Harvester farm equipment against annoying, profit-reducing delays. Repairs and expert service are always near at hand and quickly obtainable.

And because of this good after-sale service, plus service-proved quality and time-acquired manufacturing experience, the names **McCormick, Deering, International** and **P. & O.** have come to be recognized as guarantees of the fullest possible measure of satisfactory, profitable performances as applied to the products they represent. These products, over fifty in number, are sold by International dealers everywhere—**farm machine headquarters in their respective communities.** One of these dealers is located near you.

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ST. CLOUD, Minnesota



The Good Milking Shorthorn in Cloverland

By FRANK D. TOMSON

IN a recent contribution to Cloverland Magazine, in "The Making of a Greater Industry," special reference was made to beef production and the relation of the Shorthorn to that important and growing business. There is another phase of Shorthorn production that is engaging decidedly increased attention. It is the milking possibilities of the Shorthorn cow.

This milking tendency is an inherent tendency of the Shorthorn. Its development has been, in many cases, retarded by the indifference of the owner to milk production. This was especially true out in the West and Southwest range country where the cows carrying Shorthorn blood usually needed to be milked after their calves were dropped, a "chore" that did not meet with a hearty response on the part of the ranger-riders, the cowboys of the "movie" type. But, generally speaking, the farmers and breeders have come to recognize the advantage which the Shorthorn cow possesses in this strong tendency to milk production.

Along with this recognition has come the practice of encouraging its increase and very remarkable results are obtained. Only last year in Canada, which is a part of the Cloverland district, 134 registered Shorthorn cows were reported having milk records, under farm conditions, ranging from 7,000 to 17,233 pounds of milk per year. This is remarkable considering there has been no widespread, systematic effort to make milking records with the Shorthorns. Thirty-one of these cows made records from 10,000 pounds up.

Over in Minnesota, which is also a part of the greater Cloverland district, a Shorthorn cow was entered in a milking contest in which 700 cows of all breeds participated. Yet this big, thick fleshed, Shorthorn cow made the highest record of the entire number, her yield being over 17,000 pounds of milk in one year.

A very interesting long time experiment is being carried on at the Kansas Agricultural College under the auspices of the state and the government. Shorthorn cows representing Scotch breeding, which has been understood to be of strictly beef character, were selected from herds in a number of states. The only requirement as regards the milking quality was that the cows should be reasonably good milkers. When their first calves were dropped, after they were assembled at the college farm, the cows were hand-milked though they had always nursed their calves previously. One had nursed four calves, another three, and most of the others two calves, which naturally had a tendency to retard the milk production. Yet, in spite of this, these cows are making a remarkable showing with milk records ranging from 7,000 up to an excess of 10,000 pounds. They are thick fleshed, low set cows, strictly of the beef type. This is an interesting demonstration of the inherent tendency of the cow "to come back" to milk production.

Over in the British Isles, non-pedigree Shorthorn cows, that is, cows that have been graded up to a pure-bred standard, yet are not eligible to registry, command prices ranging from \$200 up to an excess of \$700, because of their demonstrated ability as milk producers and as breeders. The dairy Shorthorn in the British Isles is the popular dairy animal of that country just as the good milking Shorthorn, among practical farmers, has long been the most popular cow on American farms.

There is a close relationship between the good milking Shorthorn cow and the farm conditions that prevail in your Cloverland country. Grass has its indispensable identity with economical dairying just as it has with profitable beef production.

We can understand how, out in the plains country, in Nebraska, Kansas and the Dakotas, that grain farming should be followed so extensively. The plain stretches away for hundreds of miles in an unbroken level. The virgin soil contains great fertility. Farming could be conducted on a large and extensive plan and the grain converted into cash by the time the first frost had come. But in the Cloverland country a different condition exists. The tilled areas under individual operation necessarily must be limited. The process of making a farm out of these "cut-over" lands was relatively slow and there was not the opportunity for bumper grain crops of large acreage. But through the combination of good live stock and the wonderful grasses that grow everywhere in abundance, lay the opportunity for the surest profits.

In the making of these profits, which paid for the improvements as the country developed, there was, through the agency of the herds, also, an efficient aid in bringing the lands under tillage. How natural, then, that the good milking cow, whose calf fattened in the wooded pastures and made his way to market, should have an important and growing place in this great transition movement which has been going on since the days of the passing of the logging camp and will go on until the last area of those "cut-over" districts is brought under the systematic methods of the husbandman.

Let the readers not misunderstand me. I would not detract, in the least, from the worth of achievement of any improved breed of live stock. But I recognize, as those who dwell in the Cloverland country seem to have recognized, that the combined performance of generous milk production and beef production have proven the most efficient in the winning of prosperity and in the bringing of agricultural order out of these great "cut-over" districts.

We are coming, unquestionably, to a more general practice of mixed husbandry. Our best prospects lie within the scope of this plan of operation and, naturally, the animal that fills this place to the best advantage will gain in popular favor. High milk records are only of value as it is demonstrated that they can be made under the practical conditions that obtain on the average farm. Otherwise, they are of spectacular value only. The farm cow is the one that will consume the roughage that can be grown on the farm of her owner. She cannot be maintained under hot-house methods. It is for her to convert these forage crops into beef and milk and, in bringing to her owner a cash return through these channels, she leaves the soil also in a higher state of fertility. And certainly no other bovine has ever demonstrated its dependable adaptability to these farm conditions, its reliable responsiveness to the average treatment and environment, as the Shorthorn. Certainly nowhere are conditions more favorable to the obtaining of large results, through their use, than in this Cloverland district where land is cheap, comparatively; where the grass grows lush; where the variety of forage and legume crops make excessive yields.

Personally, I do not believe in making a milking machine of the Shorthorn cow. Her best response is in the maintenance of the combination which is distinctly a breed characteristic—that of yielding a generous flow of milk and providing a thick covering of flesh. That, in my opinion, is the best cow that can be placed on the American farm, whether that be in the Cloverland district, in the corn belt, on the plantations of the South, or in the ranch country of the West, under present day conditions.

Cloverland Sheep Man Tells His Own Story

By E. H. DEHNE

I AM receiving Cloverland Magazine each month and will say it is a fine magazine. I am one of the rangers from the west and have been in the sheep business for seventeen years here in north Wisconsin and in western part of North Dakota.

We came to Taylor County, Wis., twelve years ago and bought 120 acres of the best improved land. I saw then that there was not as much money in dairying as in a flock of 100 breeding ewes on 120 acres of land, and sold all the milk cows except five head and started with sheep. Does it pay to run sheep on a farm worth \$20,000? I say, Yes. I have since sold forty acres and we keep 100 breeding ewes on eighty acres. I sell the wool from these ewes and we have around 900 to 1,000 pounds of wool each year and from eighty to 125 lambs each year for sale. Of course we keep sculling out each year, put in young ewes in their places and ship out what does not pay. Up till now we have wintered our ewes with clover and hay which we raised on the farm. We never let lambs come in until in

tures often. Always see that the sheep have salt and clean water all the time, a dry but cool barn and keep the dogs away. If you are a lover of sheep you will be successful; if not, stay away from the sheep business.

I wish you sheepmen in Northern Wisconsin the best of success. This year is one of those years we should all make up our minds to stay with the sheep.

My success in raising sheep for seventeen years is quite interesting but it would take a long time to tell it. I have found that raising sheep in a big flock on a range in the west and here in Wisconsin is about the same, except that Northern Wisconsin is far better than the west. We have green grass here almost the year around, where in the west we only have green grass for about four months.

The best way for a new beginner to start with a small bunch is to buy about twenty-five good 2 to 3 year old Wisconsin native ewes. Then get a 2 year old thoroughbred Shropshire ram or an Oxford ram, as these two kinds will stand the northern climate the best. An Oxford ram will produce



Texas Sheep Now Grazing in Northern Wisconsin

May. It is a little late, but to make a sure shot, I think it is plenty early. I very seldom feed oats or other grain to the ewes and until now have had the best of success.

I think it will pay to put up a good silo and fill it with oats and peas or break up new land for root crops. By this it will give you a chance to start feeding the shippers until the middle of the winter and then ship them out. At this time you will find that mutton is the best price. I will say a little more that sheep will do. If you have lots of cut-over land that is growing up in brush, make a fence around it and the sheep will do the rest. You will be surprised how soon this land will be ready for the plow. But don't think that nothing but brush is good enough for sheep. This is just where most will make a mistake. Give them for a change a good grass pasture.

I and my boy cleared ten acres this spring. It is fun to clear land when the sheep are done with it. When we bought our 120 acres of land there were sixty acres of timber on this farm. Today we buy our own wood. The timber is all gone and it is all under plow except ten acres and it will be fun to break this out. This I never could do with milk cows. I will say that Northern Wisconsin is one of the best dairy countries on the globe and it is also hard to beat in sheep raising.

Just one more pointer. Does it pay to raise sheep on high priced land in Northern Wisconsin? I say, Yes. The farm should be fenced all around and cross fenced with woven wire. Make the patches into ten acre lots. This will give you a chance to change pas-

tures often. Always see that the sheep have salt and clean water all the time, a dry but cool barn and keep the dogs away. If you are a lover of sheep you will be successful; if not, stay away from the sheep business. I wish you sheepmen in Northern Wisconsin the best of success. This year is one of those years we should all make up our minds to stay with the sheep. My success in raising sheep for seventeen years is quite interesting but it would take a long time to tell it. I have found that raising sheep in a big flock on a range in the west and here in Wisconsin is about the same, except that Northern Wisconsin is far better than the west. We have green grass here almost the year around, where in the west we only have green grass for about four months. The best way for a new beginner to start with a small bunch is to buy about twenty-five good 2 to 3 year old Wisconsin native ewes. Then get a 2 year old thoroughbred Shropshire ram or an Oxford ram, as these two kinds will stand the northern climate the best. An Oxford ram will produce heavier lambs, but most sheepmen will take a Shropshire ram. If you have nice clover hay and some oats or root crop to feed one month before lambing time to give the ewes a good flow of milk, then I will say in a small bunch of twenty-five breeding ewes, let the lambs come in about the first of April. I found the bigger the bunch the later. May 5 or May 10 is a sure shot. Turn the ewes out on grass in the spring as soon as possible. A little green grass, good clover and a little oats or root crop and plenty of exercise is what they want. Don't over-stock your pasture or you will have trouble with stomach worms. Change them into new pastures. I sold lambs born May 1, three months old, that weighed from seventy to seventy-five pounds and found that lambs born in January did not bring that. If a lamb does not get plenty of milk right from the start, it will stunt and be a scull or scrub. So you will see it is better to let the lambs come in May.

Northern Wisconsin can't be beat in raising sheep. Anyone interested in sheep would do well to visit a good sheep man and get a few pointers. Get a book from Mr. Kleinheinz in Madison, Wis., and study it carefully and watch other experiences of sheepmen. If you are a lover of sheep, easy money in it, boys. You don't have to go west to start a sheep range. Those days are over. Right here in our Cloverland is that paradise for sheep.

Any farmer knows that the daughter of a scrub cow and a pure-bred sire will give twice as much milk as her mother. So why the scrub bull?



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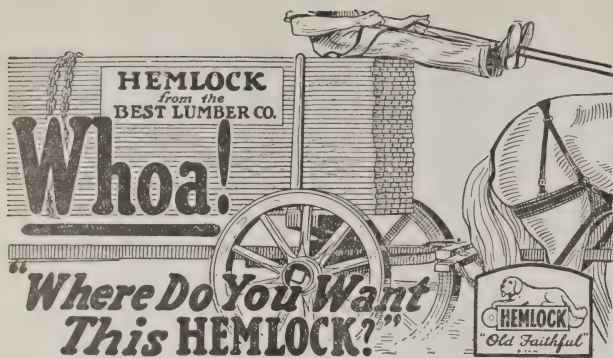


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Wisconsin Central Ry. Land Grant Lands in Wisconsin

With Bridges Burned

By REX BEACH

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SYNOPSIS:

Louis Mitchell was laid off with other employees of Comer and Mathison, contractors, when the bottom dropped out of the steel business. The firm had no work, and rigid retrenchment was the policy. The blow fell heavily upon young Mitchell, recently married, wounding his pride more than questioning his ability as a salesman.

Mitchell had heard that a firm in London was advertising for bids to build cyanide tanks in South Africa to replace property that had been destroyed by the Boers. It was a \$3,000,000 job. The firm scoffed at Mitchell's proposition to attempt to land the contract.

Mitchell talked the matter over with his young wife and they decided he could get the job. Out of \$1,000 they had saved Mitchell took \$800 and sailed for England, to figure and bid against the biggest competition he had ever been in, bid on the biggest job he had ever tackled, and in a foreign country where all conditions, manners and customs were strange.

He arrived in London bubbling over with enthusiasm and confidence, aware of the net of technicalities that enmeshed him.

In the face of English reserve, hauteur and prejudice against all things Yankee, Mitchell shouldered his way into the regard of Peebley, head of the South African concern, and, with a distressing time limit hanging over him, set about to twice figure the blue-prints, preparatory to entering his bid for the construction of the tanks.

MITCHELL asked permission to talk to the head draftsman and received it, and following their interview he requested the privilege of dictating some notes regarding the interview. In this way he met the stenographer. When he had finished with her he flipped the girl a gold sovereign, stolen from the sadly melted nine hundred and twenty.

As Mitchell was leaving the office the Director General yielded to a kindly impulse and advised his new acquaintance to run over to Paris and view the Exposition.

"You can do your figuring there just as well as here," said he. "I don't want your trip from Chicago to be altogether wasted, Mr. Mitchell."

Louis smiled and shook his head, "I can't take that Exposition back with me, and I can take this contract. I think I'll camp with my bid."

In the small hours of that night he made a discovery that electrified him. He found that the most commonly used section in his specifications, a twelve-inch I-beam, was listed under the English custom as weighing fifty-four pounds per foot, whereas the standardized American section, which possessed the same carrying strength, weighed four pounds less. Here was an advantage of eight per cent in cost and freight! This put another round of the ladder beneath him; he was progressing well, but as yet he had learned nothing about his competitors.

The next morning he had some more dictation from Peebley's stenographer, and filched another sovereign from his sad little bank-roll. When the girl gave him his copy he fell into conversation with her and painted a picture of Yankee-land well calculated to keep her awake nights. They gossiped idly, she of her social obligations, he of the cyanide-tank business—he could think of nothing else to talk about. Adroitly he led her out. They grew confidential. She admitted her admiration for Mr. Jenkins from Edinburgh. Yes, Mr. Jenkins's company was bidding on the Krugersdorp job. He was much nicer than Mr. Kruse from the Brussels concern, and, anyhow, those Belgian firms had no chance at this contract, for Belgium was pro-Boer, and—well, she had heard a few things around the office.

Mitchell was getting "feed-box" information. When he left he knew the names of his dangerous competitors as well as those whom, in all likelihood, he had no cause to fear. Another step! He was gaining ground.

In order to make himself absolutely certain that his figures would be low there still remained three things to learn, and they were matters upon which he could afford to take no slightest chance of mistake. He must know, first, the dates of those other bids; second, the market-price of English steel at such times; and third, the cost of fabrication at the various mills. The first two he believed could be easily learned, but the third promised to afford appalling difficulties to a man unfamiliar with foreign methods and utterly lacking in trade acquaintances. He went at them systematically, however, only to run against a snag within the hour. Not only did he fail to find the answer to question number one, but he could find no market quotations whatever on structural steel shapes such as entered into the Krugersdorp job.

He searched through every possible trade journal, through reading rooms and libraries, for the price of I-beams channels, Z-bars, and the like; but no where could he even find mention of them. His failure left him puzzled and panic-stricken; he could not understand it. If only he had more time he reflected, time in which to learn the usages and the customs of the country. But time was what he had not. He was tired, very tired from his sleepless nights and hours of day light strain—and meanwhile the days were rushing past.

While engaged in these side labors he had, of course, been working on his draftsman friends, and more assiduously even than upon his blueprints. On Tuesday night, with but one more day of grace ahead of him, he gave a dinner to all of them, disregarding the fact that his bank-roll had become frightfully emaciated.

For several days after that little party blueprinting in the Robinson-Ray office was a lost art. When his guests had dined and had settled back into their chairs, Mitchell decided to risk all upon one throw. He rose, at the head of the table, and told them who he was. He utterly destroyed their illusions regarding him and his position with Comer & Mathison, he bared his heart to those stoop-shouldered, shabby young men from Threadneedle Street and came right down to the nine hundred and twenty dollars and the girl. He told them what this Krugersdorp job meant to him and to her, and to the four twenty-dollar bills in Chicago, Illinois, U. S. A.

Those Englishmen listened silently. Nobody laughed. Perhaps it was the sort of thing they had dreamed of doing some day, perhaps there were other girls in other tiny furnished flats, other hearts wrapped up in similar struggles for advancement. They were good mathematicians, it seemed, for they did not have to ask Mitchell how the nine hundred and twenty was doing, or to inquire regarding the health of the other eighty. One of them, a near-sighted fellow with thick lenses, arose with the grave assertion that he had taken the floor for the purpose of correcting a popular fallacy; Englishmen and Yankees, he declared, were not cousins, they were brothers, and their interests ever had been and ever would be identical. He said, too, that England wanted to do business with America, and as for this particular contract, not only did the British nation as a whole desire America to secure it, but the chaps who bent over

(Continued on page 20)

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The Stump as It Appeared Before the Explosion

Electric Blasting Is Cheaper Than Cap and Fuse

By GUY G. MEANS

THE pictures show typical old white pine stumps on the farm of Mr. Flora McNamara, a former bookkeeper, who is making a paying business out of farming 160 acres of land that was originally like that shown in pictures. Mr. McNamara has cleared eighty out of the 160. He has used dynamite with the cap and fuse system for years and is a careful workman. However, he had not tried out either low grade dynamites or the electric blasting machine until we shot the stump shown in the pictures.

I asked Mr. McNamara what the average load would be for that stump of 40 per cent dynamite. He said that it would be ten or twelve sticks with the cap and fuse method. We loaded it with nine sticks of 20 per cent ammonia dynamite and fired it with the electric blasting machine.

The load which Mr. McNamara after years of experience said he did not believe would get the stump out proved entirely too much and the stump was blown high into the air. Thus it proved that the low grade

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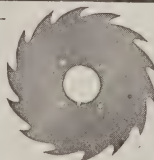
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Electric Blasting Leaves Only a Shallow Hole

dynamites are the cheapest and best for clay soil but also that the electric system of blasting is not only safer but better and cheaper. A dynamite expert present decided that with the electric method, two pounds of 20 per cent dynamite properly loaded in four holes would have removed this stump perfectly. The size of the stump is shown in the picture.

The long spoon-like tool shown with the glove on top is a spud used widely here in the sandy soils to make a larger hole under the center of the stump in order that the full charge to be fired by cap and fuse may be placed as compactly as possible under the center. It is a quick method of getting the charge in and where the electric system cannot be used is of value. The spoon is made by a blacksmith from an old worn-out blacksmith's rasp. The steel bar (eight sided, 1½ inches in diameter), on which the other glove is hanging is the quickest and best tool to make holes for the smaller charges used with the electric method. It is driven

into the ground with a ten pound sledge.

The picture after the blast showing Mr. Capling sitting on the bottom of the hole shows the shallow hole left by the electric method even when the charge was heavier than necessary. This stump was loaded by the writer according to the advice of local blasters and for that reason and his own inexperience with this class of stumps, the charge was entirely too heavy. The point is that the average man uses too much dynamite, uses too high a grade dynamite and that a saving could be made by the use of the electric system of firing.

This land is easily one-fourth taken up with stumps and Mr. McNamara says that he would not consider trying to plow it under any conditions until the stumps were removed. It is as good level and fertile agricultural land as I have seen anywhere and there are thousands of acres like it boarding nothing but stumps when our soldiers and our allies need the food it would grow.

Cowpeas Too Valuable for Food Use

THAT the economic value of cowpeas when used in the planting rotation on the farm, and the consequent heavy demand for seed, make it imperative that the commercial supply of this legume be increased, is the opinion of specialists of the U. S. Bureau of Markets, based on a study of the cowpea situation in the United States.

At the present prices, to feed cowpeas fit for planting purposes to live stock is not profitable. To increase the commercial supply it is seemingly only necessary for farmers to conserve the supply that is produced and prepare and market more of it for planting purposes. Such action would result directly in a greater profit to producers of cowpeas for seed and indirectly to farmer consumers who desire to grow the crop for purposes other than grain production.

The annual farm value of cowpeas produced in the United States averages during recent years over \$30,000,000. The total production during each of the past three years is estimated to be as follows: 1917, 767,200,000 pounds; 1918, 745,000,000; and 1919,

607,300,000 pounds. From 40 to 50 per cent of the annual production is required for planting. Of the quantity required for planting, 30 per cent, 75,000,000 to 100,000,000 pounds normally enters commercial channels to be distributed by various dealers; 15 per cent, 37,000,000 to 50,000,000 pounds, is sold by the growers direct to the farmers; and 55 per cent, 135,000,000 to 165,000,000 pounds, is retained for planting on the farms where produced, according to reports received by the Bureau of Markets.

The total quantity sold is less than 25 per cent of the total production after providing for the reseeding requirements on the farms where produced. In 1919 and again in 1920 the demand for cowpeas for planting purposes was greater than the commercial new-crop supply, resulting in abnormally high prices during May and June, 1919, and practically the entire 1920 season. The short supply does not seem to be the result of low production but rather the failure on the part of farmers to prepare more of their cowpeas for commercial distribution.

Mid-winter Seed Show at St. Paul

THE date of the next Seed Fair annually put on by the Minnesota Crop Improvement Association was definitely set for February 23, 24, 25, at a recent executive board meeting. The meetings and show will be held in the convention rooms of the Ryan Hotel, St. Paul. The Minnesota show is one of the largest of its kind held anywhere in the United States. Prospects are that it will this year even surpass the record show of last year held at Tracy, Minn., where about twelve hundred individual entries were made. Exhibits of certified seed

will be a special feature of the show.

For the speaking program arrangements are being made to get prominent speakers from other states as well as from Minnesota. At the business session special attention will be given on how to best handle the seed certification in the state. This branch of the association work has expanded so much the past year that the methods of handling it will have to be revised.

Many other live topics of interest to every progressive farmer will also be included on the program.



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A General Banking Business, Commercial and Savings Departments
3% Interest paid on Savings Deposits

Officers and Directors: F. P. Bohn, Pres.; W. G. Fretz, Vice Pres.; H. H. Head, Vice Pres.; E. M. Chamberlain, Cashier; E. L. Fretz, Andrew Weston, J. C. Foster, Matt Surrell

First National Bank of Iron River

Iron River, Michigan

Capital, \$50,000.00
Surplus, \$20,000.00

We invite letters of inquiry regarding Iron County

Officers: Ellsworth S. Coe, Pres.; Wm. J. Richards, Vice Pres.; A. J. Pohland, Cashier

First National Bank of Sault Ste. Marie

Sault Ste. Marie, Michigan

Since 1886 this strong bank has been interested in the growth and development of Chippewa County.

Correspondence Invited

Officers: R. G. Ferguson, Pres.; Otto Fowle, Vice Pres.; Chase S. Osborn, Vice Pres.; E. H. Mead, Vice Pres.; Fred S. Case, Vice Pres. and Cashier

First National Bank of St. Ignace

St. Ignace, Michigan

The oldest and largest Bank, and the only National Bank in Mackinac County

Your business inquiries will receive prompt and courteous attention

Officers: O. W. Johnson, Pres.; E. H. Hotchkiss, Vice Pres. and Cashier

First National Bank of Marquette

Marquette, Michigan

Over \$2,000,000.00 Resources

Officers: Louis G. Kaufman, Pres.; Edward S. Bice, Vice Pres.; Charles L. Brainerd, Cashier

Marquette National Bank

Marquette, Michigan

Capital and Profits, \$160,000.00
United States Depository

We invite correspondence

Officers and Directors: J. M. Longyear, Pres.; D. W. Powell, Vice Pres.; Chas. H. Schaffer, Vice Pres.; F. J. Jenkinson, Cashier; H. R. Fox, Asst. Cashier; E. A. Brown, Asst. Cashier; Daniel W. Powell, Asst. Cashier; Chas. H. Schaffer, Frank J. Jenkinson, A. T. Roberts, R. E. Bronson, E. L. Pearce, J. E. Sherman, J. D. Reynolds, John M. Longyear

The Marquette County Savings Bank

Marquette, Michigan

Officers and Directors: H. L. Kaufman, Pres.; S. R. Kaufman, Vice Pres.; G. A. Carlson, Cashier; O. E. Barber, Asst. Cashier; E. J. Hudson, E. S. Bice, Louis G. Kaufman, Chairman Advisory Committee

With Bridges Burned

(Continued from page 16)

the boards at No. 42½ Threadneedle Street were plugging for her tooth and nail. His hollow-chested companions yelled their approval of this statement, whereupon Mitchell again arose, alternately flushing and paling, and apologized for what had happened in 1776. He acknowledged himself ashamed of the 1812 affair, moreover, and sympathized with his guests over their present trouble with the Boers. When he had finished they voted him the best host and the best little cyanide tank-builder known to them—and then everybody tried to tell him something at once.

They told him among other things that every bid except his had been in for two weeks, and that they were in the vault under the care of Mr. Pitts, the head draftsman. They promised to advise him if any new bids came in or if any changes occurred, and most important of all, they told him that in England all structural steel shapes, instead of being classified as in America, are known as "angles," and they told him just how and where to find the official reports giving the price of the same for every day in the year.

The word "angles" was the missing key, and those official market reports formed the lock in which to fit it. Mitchell had taken several mighty strides, and there remained but one more step to take.

When his guests had finally gone home, swearing fealty, and declaring this to be the best dinner they had ever drunk, he hastened back to his room, back to the desert of blueprints and to the interminable columns of figures, and over them he worked like a madman.

He slept two hours before daylight, then he was up and toiling again, for this was his last day. Using the data he had gathered the night before, he soon had the price of English and Scottish steel at the time the last bids were closed. Given one thing more—namely, the cost of fabrication in these foreign shops, and he would have reduced this hazard to a certainty, he would be able to read the prices contained in those sealed bids as plainly as if they lay open before him. But his time had narrowed now to hours.

He lunched with John Pitts, the head draughtsman, going back to pick up the boomerang he had left the week before.

"Have you gone over my first bid?" he asked, carelessly.

"I have—lucky for you," said Pitts.

"You made a mistake"

"Indeed! How so?"

"Why, it's thirty per cent too low. It would be a crime to give you the business at those figures."

"But, you see, I didn't include the sub-structure. I didn't have time to figure that." Mitchell prayed that his face might not show his eagerness. Evidently it did not, for Pitts walked into the trap.

"Even so," said he; it's thirty per cent out of the way. I made allowance for that."

The boomerang had finished its flight!

Once they had separated, Mitchell broke for his hotel like a hunted man. He had made no mistake in his first figures. The great Krugersdorp job was his; but, nevertheless, he wished to make himself absolutely sure and to secure as much profit as possible for Comer & Mathison. Without a handsome profit this three-million-dollar job might ruin a firm of their standing.

In order to verify Pitts' statement, in order to swell his proposed profits to the utmost, Mitchell knew he ought to learn the "overhead" in English mills; that is, the fixed charges which, added to shop costs and prices of material, are set aside to cover office expenses, cost of operation, and contingencies. Without this information he would have to go it blind, after a fashion, and thereby risk penalizing himself; with it he could estimate very closely the amounts of the other bids and insure a safe margin for Comer & Mathison. In addition to this pre-

caution he wished to have his own figures checked up, for even under normal conditions, if one makes a numerical error in work of this sort, he is more than apt to repeat it time and again, and Mitchell knew himself to be deadly tired—almost on the verge of collapse. He was inclined to doze off whenever he sat down; the raucous noises of the city no longer jarred or startled him, and his surroundings were becoming unreal, grotesque, as if seen through the spell of absinthe. Yes, it was necessary to check off his figures.

But who could he get to do the work? He could not go to Threadneedle Street. He thought of the Carnegie representative and telephoned him, explaining the situation and his crying need, only to be told that no one in that office was capable of assisting him. He was referred, however, to an English engineer who, it was barely possible, could handle the job. In closing, the Carnegie man voiced a vague warning:

"His name is Dell, and he used to be with one of the Edinburgh concerns, so don't let him know your inside figures. He might spring a leak."

A half-hour later Mitchell, his arms full of blue-prints, was in Mr. Dell's office. But the English engineer hesitated; he was very busy; he had numerous obligations. Mitchell, after over the threadbare rooms and hastily estimated how much of the nine hundred and twenty dollars would be left after he had paid his hotel bill. What there was to do must be done before the next morning's sun arose.

"This job is worth ten sovereigns to me if it is finished tonight," he declared, briskly.

Mr. Dell hesitated, stumbled, and fell. "Very well. We'll begin at once," said he.

(To be continued)

The First National Bank of DULUTH

At the Center of Cloverland

CAPITAL, SURPLUS
and PROFITS

\$3,250,000

THE development and progress of Northeastern Minnesota has for 38 years been the interest of this bank. In the future of this community and in the success of its people we have a vital concern

Talk your problems over
with us or consult
us by mail.

W. P. WAGNER, Pres. H. S. ELDRED, V.P.
GEO. D. NAU, V.P. H. P. KLAUS, Cashier
R. W. SMITH, Asst. Cashier

Citizens National Bank

Capital and Surplus \$500,000.00

GREEN BAY, WISCONSIN

ANALYZING THE HIGH COST OF LIVING

By WM. J. ANDERSON

THE 1919 session of the Wisconsin legislature created the Division of Markets under the State Department of Agriculture. It is now about a year since the Division began to function, having for its guidance the provisions of the statute creating it which directs that it shall promote the efficient distribution of farm products, locate farm products and give information both to producers and consumers, determine proper shipping routes, aid in other ways in reducing the expense and waste incidental to the marketing of farm products, and disseminate useful information relative to marketing. In addition to outlining these duties the law authorizes the director of the Division to investigate the questions of supply and demand, prevailing prices, cost of production, profits in handling farm products, and profits in the manufacture or handling of such manufactured products as are in general use by the farmer.

It is under the discretionary authority granted him that Director Nordman has done his most important work without neglecting the routine duties imposed. Soon after his assumption of the duties of the office, Mr. Nordman, who had served several terms as member of the legislature, and for many years or more had been a lecturer at Farm Institutes, gathered together a group of men, the majority of them from outside his office staff, to hold weekly meetings and discuss the economic and industrial problems which the work of the Division brought to light. In this group are university professors, merchants, farmers and students of economics. This group naturally took up the subject of the high cost of living with a view to reaching some conclusions which might point the way to the alleviation of the economic strain under which the people of the state in common with those of other states are laboring. Up to October 1 two general conclusions as to the causes of the present high range

of prices had been reached. These conclusions are prefaced by the statement that the abnormal cost of living has not come suddenly. The causes which led to it were at work long before the war. The latter only hastened the movement. A long range view therefore is necessary in considering the problems.

According to the conclusions of the Market Division thus far reached the two fundamental causes of the high cost of living are:

- (1) Lack of system in the marketing and distribution of commodities, and,
- (2) Migration from the country to the city.

As to the first of these it is interesting to note that in the years of high production before the war there was witnessed a continual rise in the prices of commodities. Production had been well organized and highly efficient while distribution had always been lacking in system and organization. This is due to the fact that the country has been growing very rapidly and that in the continual flurry of production insufficient attention was given to organizing the methods of distribution. America, to say it in a few words, has been extremely careless because of its great natural resources and the general prosperity which is characteristic of all new countries.

As population grew and free land gradually disappeared the defects in the economic system began to show themselves. People began to notice and to wonder that with the increase of production the profits of the farmer were reduced and the prices for the consumers were increased. The middleman was blamed for this sad state of affairs. Farmers' movements were started to organize the farmers of the country to eliminate the middleman. "Middlemen" usually has been understood to include all those who do not take a direct part in the production of goods, but only in the transfer of the

(Continued on page 24)

WE HELP YOU!

All we ask of any experienced stockman or farmer is a clean record, possessing ambition and the energy to go forward. If you have these requisites write to us and we will give you a choice location on some of our best cut-over land on terms and conditions that will enable you to make a success if you have the right kind of stuff in you.

Write to Us

Tell us about the size acreage you want, what you want to do with it, whether you now possess any stock—beef cattle, dairy cows, sheep or swine, and horses—whether you have any farm implements and tools, and give us one or two references.

We Will Do the Rest

We have thousands of acres of good, hardwood cut-over land, watered with clear streams and lakes, with an abundance of grass and clover going to waste each year. There are no commissions to pay. We own the land and make terms and arrangements with each purchaser to suit his needs, and give aid in establishing credit and banking connections. Tell us frankly what you want. All correspondence confidential.

SAWYER GOODMAN COMPANY
MARINETTE, WISCONSIN
Or
GEORGE H. HEDQUIST, Supt.,
GOODMAN LUMBER COMPANY
GOODMAN, WISCONSIN

Bank by Mail

WHEN it is inconvenient for you to come to town you need not worry about transacting your banking business. The First National Bank is as near your door as the telephone or mail box. A telephone call or a letter to this bank will receive prompt and careful attention. You will find it helpful at all times to make use of this service.

Saving adds 100% to the satisfaction of spending. The saver is a wise spender—gets his money's worth.

Special attention given and facilities offered to out-of-town patrons.

First National Bank

MARQUETTE, MICHIGAN

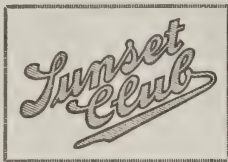
DESIGNATED UNITED STATES DEPOSITORY

Capital, Surplus and Undivided Profits In Excess of \$300,000



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*It is the result of twenty-two years
of careful and intelligent blend-
ing by coffee experts.*



INSIST ON THE GENUINE

ROASTED and PACKED BY

JOANNES BROS. COMPANY

GREEN BAY, WISCONSIN



Pioneer Farm Near Cloquet in Northeastern Minnesota

A MINNESOTA TESTIMONIAL

COMMISSIONER ARNESON of the Minnesota Immigration Department has received the following self-explanatory letter:

"Replying to your favor of June 24, will say that we, after studying the possibilities of nearly every state in the Union, decided that Minnesota was the place for us. Through my brother-in-law, B. A. Waffles, 1563 Charles street, St. Paul, Minn., I received some literature from your office. This was about the time you made a trip down to Davenport. In October, 1918, my wife and I made a trip to the Twin Cities intending then to go into Aitkin and Itasca Counties, but on account of some forest fires we changed and William Traub, McKnight Bldg., Minneapolis, got us to come up here. It was Traub Brothers that sold us our first farm and it was Traub Brothers that just about set us up and

saw us over our first rocky roads and started us right on our second year and our prospects now are far beyond what anyone ordinarily could look for. This is our second year here and besides our own eighty acres we are running 155 acres more.

"We are very well satisfied with this country and cannot see why so many people stay in towns and slave away when there are so many openings around here for them. An eighty acre farm in this county is better than a \$10,000 job in Davenport or Rock Island. Hope you can get some of these folks down there to see it that way. It would be impossible for me to say too many good things of this part of the country and also the people here.

"Excuse my burst of enthusiasm, but you asked for it. Respectfully, G. E. Anderson, Henning, Minn., R. F. D. 3."

Quaker Heat is Quicker Heat —and Cleaner too

The Quaker Pipeless Furnace is built of heavy riveted boiler plate steel—and steel radiates heat **THREE** times as fast as cast iron. That is why Quaker heated homes are always so comfortable, **EARLY**, on cold mornings. Just open the draft, and up through the Quaker Register pours an enormous volume of warm, pure, clean air, properly "humidified."

BEFORE YOU BUY A FURNACE, BETTER FIND OUT ABOUT

QUAKER

"The Pipeless Furnace That is Built of Steel"

It not only gives quicker heat, but **more** of it from the **same** fuel. Every corner of every room is warmed thoroughly.

It's **cleaner**, too, because every joint is riveted tight, like a locomotive steam boiler. It can't leak gas, soot, or ashes, as the cement joints of cast iron furnaces do.

Quaker Pipeless Steel Furnaces are easily installed in old or new buildings. Only one register is required. There are no pipes, and no bulky cold air returns. Your walls are not torn up; no cellar is too small.

It will burn any fuel, and is particularly adapted to soft coal. Handy water filler outside of the furnace keeps the air moist and pure. The more moisture in the air, the less fuel is needed. Keeps the cellar cool for fruit and vegetables.

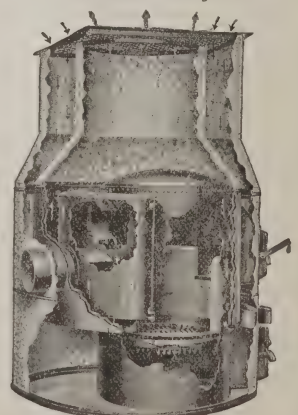
The fire pot is lined with high temperature fire bricks, which hold the heat extra long. If they ever burn out, they can be quickly and cheaply replaced.

The Quaker is the ideal heating plant for homes, schools, churches and stores.

Write MARSHALL-WELLS CO., at Duluth

*For advice as to size to use; price will be quoted and order
handled through local dealer.*

Heats Entire House
With This One Register



Arrows show direction of air currents

WISCONSIN HOG RAISERS JOIN TO IMPROVE GRADE

WISCONSIN is promoting a better bred hog campaign along with its live stock and agricultural enterprises, and in this particular line of work certain obstacles have been encountered that require adjustment. One of the most important of these obstacles appears to be the sale of pure bred swine that may not be "pure bred," and if they are, none have not been up to standard or were higher priced than normal. To break up this practice and encourage farmers to make more careful investigations before buying swine the Wisconsin Live Stock Breeders' Association has issued the following warning:

Swine raising ranks as one of the most important branches of Wisconsin's live stock industry. Practically every farmer raises hogs and the type of hog grown determines to a great extent the profit made. Each year better boars of the right type are eagerly sought by farmer breeders. In addition to the annual crop of boars needed many farmers find it profitable to lay the foundation for a purebred herd by buying one or more good females.

In recent years the demand for breeding stock has been so great as to attract men who act as jobbers and sometimes use questionable selling methods—men who neither farm nor breed animals.

Representatives of some of the swine selling organizations which have been operating in Wisconsin during the past year have used the bankers, and at other times, other influential men in the community, to secure names of farmers to whom they might sell hogs and from whom they might, with safety, accept notes in payment. In fact, they only sold to farmers and breeders who could give notes which could be sold at banks when the hogs were delivered. In some instances the sales were made by selling methods that a reputable breeder would not use.

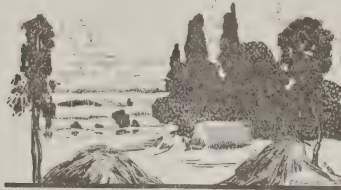
The stock placed in Wisconsin by these associations were in many instances not as good as could have been bought from breeders of Wisconsin and neighboring states for less money than the farmers paid for them. The majority of the breeders of the state want the hog business conducted only in a good straightforward business manner. Through their official channels they take this method of urging the buying public, to carefully investigate any and all schemes of promoting sales of purebred hogs.

The breeders fully appreciate what Wisconsin bankers have done and are willing to do for the promotion of the hog industry of the state. They want to co-operate with discriminating bankers in every way possible and believe that such co-operation will help much in developing the live stock industry of the state.

There are in the state at the present time hundreds of breeders of Berkshires, Chester Whites, Duroc Jerseys, Hampshires, Poland Chinas and the other recognized breeds and very many of these men are members of the respective state swine breeders' associations. The officials of these various associations have pledged themselves to a constructing policy for the development of Wisconsin's important and growing swine industry.

We are placing our respective organizations solidly back of a program which it is believed will result in every member standing behind every animal he sells. We have unbounded faith in the future of Wisconsin as an economical producer of profit making hogs and we invite the co-operation of every man in the state who is interested in more and better pork.

Very truly yours,
Wisconsin Berkshire Breeders' Ass'n.,
A. D. Whitmore, President.
Wisconsin Chester White Breeders' Association,
W. J. Martin, President,
E. H. Babcock, Secretary.
Wisconsin Duroc Jersey Breeders' Association,
E. H. Parker, President.
Wisconsin Poland China Breeders' Association,
James Derivan, President,
Burlie Dobson, Secretary.



Moving This Year's Crops

is a big job, calling for the fullest amount of co-operation on the part of farmer, shipper, banker and consumer.

The First Wisconsin National Bank, advantageously situated with reference to Cloverland, is doing its share in facilitating the 1920 crop movement.

We have long made it a practice to co-operate with and expedite the business of our colleagues in Cloverland.

FIRST WISCONSIN NATIONAL BANK Milwaukee

Wool Growers to Protect Consumers

THE prices of rags fit to be reworked into cloth increased from 300 per cent to 1,200 per cent between June, 1914, and December, 1919, through the increased use of wool substitutes in cloth sold as "all wool"—a term understood by the public to mean all virgin (new) wool.

Textile manufacturers prefer wool substitutes because they can make more money with them, while the law permits cloth made of them to be sold unidentified through stamping, than they could make with virgin wool. In consequence, rags have elbowed virgin wool out of its legitimate market and wool growers face ruin.

The public demand for virgin wool is great, but the response of the textile manufacturers is little. Last year, they gave the public an allowance of three pounds of virgin wool per capita. The need, it is thought, is twelve pounds per capita.

The French-Capper Truth in Fabric bill, which was left with the Committee on Interstate Commerce in both houses of Congress at adjournment, was designed to compel manufacturers to stamp cloth with its content of substitutes and of virgin wool.

Through the identification of substitutes by stamping, the public would earn what sort of cloth it is offered in the name of "all wool" and would be allowed to decide for itself how much virgin wool it wants per capita. Unrattled public demand would re-

call the accumulations of unmanufactured virgin wool from the storehouses and restore its market.

In its fight for the Truth in Fabric bill, which is of vital import to you as a wool grower or as a cloth buyer, this Bureau is dependent upon voluntary subscriptions. Without immediate aid, it cannot continue its fight with undiminished vigor, though the prospect for the early enactment of the French-Capper measure is bright. The enclosed membership blank is for your convenience in making your contribution toward the support of the Truth Fabric Movement.

The increased use of wool substitutes in cloths sent up the price of rags from 300 per cent to 1,200 per cent between June, 1914, and December, 1919. Great Britain is the chief rag market of the world and prices prevailing there provide a uniform basis of comparison. The following statistics were gathered at Leeds, England, by U. S. Consul Percival Gasset:

Grade of Rags.	—Price Per 100 Lbs.—	June, 1914.	Dec. 1918	Dec. 1919
New black worsteds.....		\$17.49	\$56.54	\$58.57
New blue worsteds.....		17.49	58.54	90.40
New black serges.....		12.18	45.75	58.54
Old black worsteds.....		5.44	20.45	65.24
Old blue worsteds.....		6.00	30.45	65.24
Old black serges.....		4.78	30.45	34.80
Old dark gray cloths.....		3.91	17.40	17.40
Best black Berlin stockings.....		19.87	17.75	71.51
Best colored stockings.....		13.05	53.50	54.44
Best tan stockings.....		11.74	54.44	60.89
Best black coarse stockings.....		10.22	53.51	60.80
Black Merinos.....		5.22	30.45	39.14
Blue Merinos.....		5.34	31.61	43.49

Speaking of Wills—

THE Sentimentalist didn't make his because his wife couldn't bear to have him think of it.

The Procrastinator was going to—but didn't.

The Irresponsible One didn't worry at all; considered the distribution of his property the duty of the state.

Their inattention brought the inevitable suffering, loss, and regret.

Protect YOUR family's future—make a will today appointing us executor.

AMERICAN EXCHANGE NATIONAL BANK OF DULUTH, MINNESOTA

Checking Accounts

Foreign Exchange

Savings Accounts

Safe Deposit Boxes

Travelers' Checks

Bond and Trust Department

Total Resources, December 31st, 1919 Over \$20,000,000.00

The Superior Trust Company

Hancock

Michigan

Sheep and Wool in Cloverland

THE growing of wool offers an exceptionally fine opportunity to farmers throughout the Cloverland region. We are in normal times purchasers of considerable quantities of a certain kind of wool. If you are interested in buying sheep, write to F. A. Patrick & Co for information in regard to the breeds best suited for producing wools suitable for use in the Patrick mills.

F. A. PATRICK & CO

DULUTH

MINNESOTA

Special Sale of State Lands

50,000 Acres Choice Agricultural Lands. Comprising Large Tracts in the Following Counties:

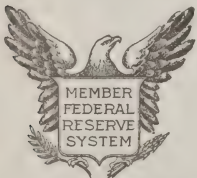
KOOCHICHIING
ST. LOUIS

CASS
ROSEAU

BELTRAMI
ITASCA

For List of Lands, Terms of Sale, etc.

Write to J. A. O. PREUS, State Auditor
STATE CAPITOL ST. PAUL, MINN.



SAULT SAVINGS BANK

"THE BANK FOR YOU"

SAULT STE. MARIE, MICH.

Northern State Normal College

MARQUETTE, MICH.

New Buildings Excellent Equipment Splendid Faculty

College Courses leading to A. B. degree—Normal School Courses for teachers of all classes—Special Courses in Art, Music, Manual Training, Home Economics, Kindergarten and Commercial.

The school has had more calls for teachers than it can supply
Write for information and bulletin

DORIS I. BOWRON, Secretary

JAMES H. KAYE, President

Analyzing the High Cost of Living

(Continued from page 27)

products from the producer to the consumer. Such are commission houses, elevator companies, packing plants and railroads. The fact which the people who made these complaints overlooked was that the middleman, whether as an individual or as a corporation, takes a necessary and important part in distribution. Goods would be useless to a great extent if they could not be transferred to the places where they are needed, or stored for the time when they will be needed.

In studying the question of services of the middleman, the Division of Markets reached the conclusion that while the middleman is an important factor in distribution his activities lack system and result in a disorganized distribution. The Division holds it of great importance to focus the attention of the public to the lack of organization in the middleman's services. With this purpose in view, three of the most important examples of this disorganization have been selected: (1) duplication of services in distribution, (2) lack of storage and warehouses, and (3) existence of monopolies.

The best illustration of duplication of services is the distribution of milk. Anyone who has lived in a large city must have noticed the many milk wagons which pass the same block. This economic waste is due to too many dealers handling the milk industry in the same city. The Division of Markets has conducted an investigation of the distribution of milk in Milwaukee and has found that outside of the waste in delivery there are many other necessary expenses in milk distribution. All this waste could be eliminated by concentrating the entire milk business in the hands of one concern. The concern handling the entire milk distribution would have all the advantages of a large scale industry. Because of the large volume of business, operating expenses would be reduced proportionally, and at the same time more efficient methods in the handling of milk would be introduced.

The lack of storage and warehouses for certain farm products is another example of a lack of system in distribution. In a potato investigation, the Division of Markets found that the lack of warehouses for storing potatoes in the consuming centers is directly responsible for the high prices in certain seasons. Because of the absence of warehouses, potatoes must be moved from the producing to the consuming centers in all seasons and in

all kinds of weather. A part of them freeze while being moved which causes a decrease in the supply. As a remedy for this situation, the Division of Markets recommends the establishment of municipal warehouses in the consuming centers.

The worst and most harmful example of disorganization in distribution is the manipulation of prices by private interests which have the control of the market. In the case of Milwaukee milk industry, the Division points to the desirability of consolidating the entire system of distribution in the hands of one concern, thereby avoiding duplication of services and reducing operating expenses. This tendency toward consolidating can be noticed in many branches of distribution. The result is an elimination of much economic waste. There is danger, however, that with the concentration of a branch of industry in the hands of one or several private parties they will get control of the market and control of prices. To obviate this difficulty the Division of Markets thinks it important to have federal supervision and regulation over all those branches of distribution which are in the hands of a limited number of individuals, such as the packing plants and the sugar and wool industry.

Concerning the second cause of the high cost of living, the migration from the country to the city and the concentration of immigrants in large cities, which is steadily decreasing the number of producers while it increases the number of consumers, the Division of Markets says: This migration is due to the inaccessibility of the land to the man of small means. The initial capital required is large which is due chiefly to the high price of land. On the other hand the return upon his investment which the farmer receives is lower than from other investments. A large part of the uncultivated arable land has been brought up and held for speculative purposes. The Division believes that the holding of land without making use of it should be made unprofitable. The Division concludes that a large migration at the present time from the city to the country is not desirable. What should be done is to make accessible to all those who are now disposed to leave the farms the available tracts that as yet lie uncultivated.

CLEANER MILK and LESS WORK

Clip the cow's flanks and udder every month during fall and winter. Makes cleaning an easy job, and no caked manure or other filth contaminates the milk. Urged by dairymen everywhere. Impossible to produce milk with low bacteria count without it. Takes only a few minutes with the Stewart No. 1 Machine, easy running, lasts long. Clips horses and mules also. Complete, only \$14 at your dealer's, or send \$2 and pay balance on arrival.

CHICAGO FLEXIBLE SHAFT COMPANY.
Dept. A-190, 5600 Roosevelt Road, Chicago, Ill.

Maple Grove Stock Farm

This flock has been bred up carefully for forty years, and representatives of the flock have shown at the fairs since the first importation in 1880.

R. J. STONE'S SONS
Stonington, Ill.

Grand Champions Again

At the Stocker and Feeder Show at St. Joseph, Mo., Oct. 6-8, a load of yearling Shorthorn Colorado steers exhibited by Henry Singer, won the grand championship of the Show and sold for \$12.75 per hundred weight, the highest price of the sale.

Alex McGregor, Washington, Kas., made the high price of the year at Kansas City the week before with a load of Shorthorn steers, the tails of three loads which he has on feed. The load, 16 head, sold for \$17.65—\$202.65 per head.

A western steer, a Shorthorn, topped the Omaha market for the year the same week, selling for \$17 and weighed 1,700 lbs. That's \$289 for the steer. He was fed and marketed by R. J. Miller, Sheridan, Wyo.

Watch for the Shorthorns at the American Royal, Kansas City; Pacific International, Portland, and International, Chicago.

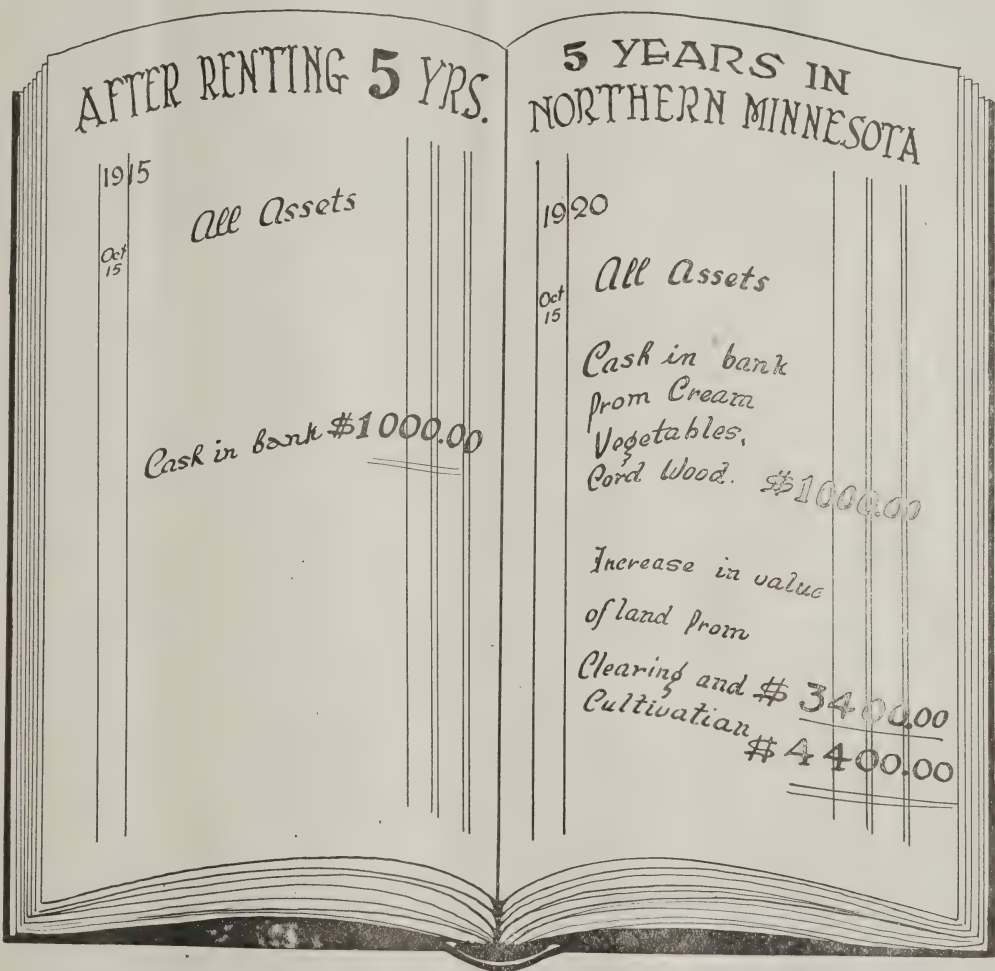
There never was a better time to start breeding Shorthorns than now.

American Shorthorn Breeder's Association
13 Dexter Park Ave. Chicago

Ask for "The Shorthorn in America."

MR. RENTER—

Where will you be at
5 years from today?



80 Acres in Northern Minnesota
Will Put You on the Road to
PROSPERITY

WRITE US FOR PARTICULARS

J. S. ARNESON, State Immigration Commissioner

STATE CAPITOL

ST. PAUL, MINNESOTA

Country Schools and Rural Planning

By W. E. LARSEN

IN considering the country school as an agency in promoting rural planning, it is well to think of the child first, rather than the teacher, the board, or the parents. If the children can become interested and anxious to make improvements, they constitute a force that can be directed in carrying out projects which they, themselves, have originated.

The children in the schools—coun-

ries on business in the same way that any society does.

With this organization established permanently in the various schools, the Rural Planning Committees of the county have a large number of active agencies which they can utilize. Letters, circulars, pamphlets, and other material may be sent directly to these societies. The improvements may thus become a feature of the regular school work. In formulating plans



Oconto County Children Attended the Big County Fair

try schools and state graded schools in particular—have, under the guidance of the State Department of Public Instruction, the county superintendents, the supervising teachers, and the teachers in the schools, been organized into "school societies" in order that they may learn the act of "working together" in an organized way. In every school there should be such an organization of children. Regular meetings are held according to a constitution adopted by the children. The society elects its officers and car-

and suggestions, it will be well for the county committees to talk matters over with the county superintendent and supervising teachers and other teachers of the county. The suggestions should, of course, be simple, especially at first.

Among the activities may be mentioned the following: Improvement of school houses and grounds, improvement of homes, marking of historic places, writing up community history, especially accounts of what has been done in the way of improvement.

Michigan Wool Growers Unite

NEWS articles have been circulated in some Michigan papers that the farmers of Michigan will lose millions of dollars on their wool this year because they are holding it in pools.

The Michigan State Farm Bureau, as spokesman for 80,000 farmers, makes the following statement on the matter:

"The price of wool today is higher than when 90 per cent of the 4,000,000

ceipts upon which they can raise money, but actual advancements of money, both from the banks and from the Lansing office, total only \$17,000. Only 273 farmers have used the privilege of getting money with their wool as security.

"The farmer's ideal in regard to this pool and the state farm bureau is to perfect a co-operative marketing system which will make it possible for



Kelly; Harry Culver of Swift & Co. and Hon. J. W. Wells, of Michigan, on Mr. Kelly's Northern Wisconsin Sheep Ranch Near Wausaukee.

pounds was placed in the pool, showing that most of the farmers have gained, not lost, even if they sold now. Bids for wool aggregating 500,000 pounds, have been made to the bureau at prices ranging from 35 to 67½ cents, but have been rejected. Though the market is unsettled yet there are some signs of awakening.

"Banks have co-operated heartily in financing the wool-pool. Farmers who place wool are given warehouse re-

him to make a fair profit over the cost of producing his wool. He knows he can do together what he cannot do alone. Scientific marketing is as important to him as scientific production. What manufacturer does not figure a profit on his article over his cost of production and sets his price at that point. This bureau displays the slogan *Organized for Business*, and it strives to approach a price for the wool it is holding to match the judgment of an average business man."

These companies were the first to bring cattle to cut-over lands, and carry on profitable and successful grazing in Cloverland.

WE offer the western grazers their choice of 75,000 acres of cut-over lands in Cloverland; 25,000 in Northern Michigan; 50,000 in Florence and Forest Counties, Wisconsin.

Several ranches were selected and taken over last year by well-known western cattle and sheep men.

Write us for particulars or come and see these lands for yourselves.

J.W. WELLS LUMBER CO.
MENOMINEE, MICH.

GIRARD LUMBER CO.

J. W. Wells, President

DUNBAR, WIS.

MENOMINEE, MICH.

Damage by Rust Is Unnecessary

MANY a piece of farm machinery is broken in use, at a busy critical period, because the part has become weakened by rust.

Nowadays when a machine breaks is not only the cost of replacement to be considered, but the machine may be out of service for several days or weeks because the dealer's stock of parts is low and completely out on some items.

And it isn't the dealer's fault either in most cases. He has orders in for short stock parts, but ordering is one thing and getting orders filled is something else, as all machinery dealers and their customers know to their sorrow.

All farm machinery should be kept oiled. Reduce breakage to the minimum. Parts will break often enough when machines are handled with the utmost care, but just now when replacements are so expensive and so difficult to get promptly regardless of price, the least the farmer can do is to guard against this unnecessary weakening of essential equipment, by allowing rust to set in on it.

Fortunately paint isn't scarce. It takes very little time to apply it and the cost is nothing compared to the loss of several days' use of an important machine at a critical period in planting, cultivating or harvesting me.

Mixers on Farms

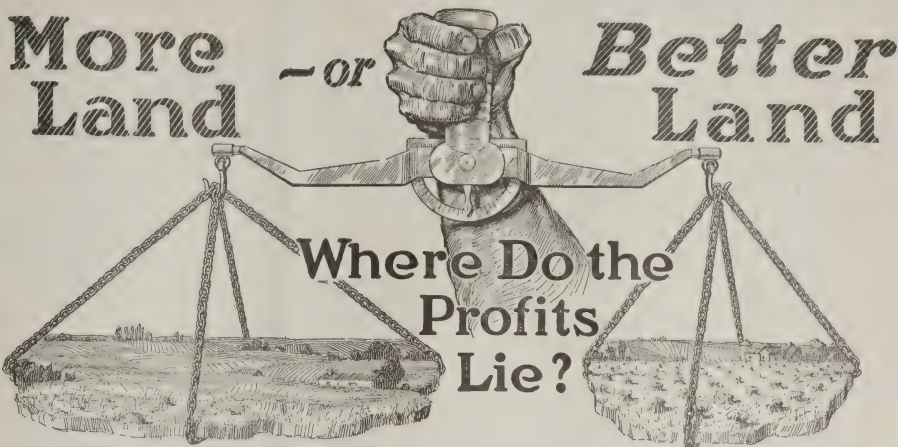
CONSTANTLY increasing use of cement on farms in making repairs, laying sidewalks and floors and erecting buildings is reported. In cement work a 1-2-3 mixture means that to each sack of cement there are two cubic feet of sand and four cubic feet of gravel or crushed stone. The sand fills the spaces between the particles of gravel and the cement fills the spaces between the particles of sand, and passes through a No. 4 screen, that is, a screen having four spaces to the linear inch. The spaces are about five inches long. Gravel is retained by a No. 4 screen. H. B. White of University Farm, who is a member of the staff of agricultural engineering, approves a mixture of "1-2-3" for pavement, poultry house, hog house and cow barn floors, which should range in thickness from three inches in the case of poultry house floors to four and one-half inches for cow barn floors. Sidewalks should be four and one-half inches thick and made of a 1-2-3 mixture, which is also recommended for porches, tanks and troughs. Horse barn floors of the "1-2-3" ratio should be five and one-half inches in thickness.

Make Cheese Now

WHY not make cheese now for your winter supply?" asks J. Keithley, of the division of dairy husbandry at University Farm. "At this season," he says, "usually a surplus of milk is found on farms and generally spare time available for doing the work. Of the many varieties of cheese the Gouda is best suited and adapted to farm home manufacture. It can be made in about one hour with the equipment and apparatus available in any well regulated farm home.

"Gouda cheese is made from sweet whole milk, and is as nutritious as the American factory made cheese. An ordinary wash boiler serves very satisfactorily as a vat."

The equipment needed, also the method of making, are explained fully in the University of Minnesota Special Bulletin No. 12, which can be obtained by addressing the dairy division, University Farm, St. Paul, Minn. Cheese made and cured according to the directions in this bulletin should be ready to eat in from three to eight weeks.



THREE hundred acres *worked right* will bring more farm profit than the whole state of Patagonia.

Unproductive land is no asset. The number of acres owned never fattened a bank account. It is *bushels per acre* alone that swells income to the high tide.

See Your Dealer Who Sells the NISCO Spreader

Find what it is doing for farmers everywhere

Learn its cost. Then compare this with the cost of a few more acres of land.

And compare the final results that land or spreader will give, the increase in bushels harvested, the actual added profits.

More than one hundred thousand high production, big value farms owe success to the regular spreading of manure with a NISCO. Ten to twenty per cent of their yearly crops are due to this advanced type, scientific machine. This is positive, demonstrated increase—net bankable, added income—made possible only by greater fertilizing efficiency which the NISCO gives.

You can get other spreaders cheaper. Naturally! But then, why change from the old wagon and pitchfork method at all, unless you want, and aim to get, *the best*?

Our Gold Seal Guarantee absolutely protects you against breakage or defects.

The New Idea Spreader Company

"Spreader Specialists"

COLDWATER,

OHIO

BRANCHES:

Harrisburg, Pa.
Omaha, Neb.
Kansas City, Mo.
Indianapolis, Ind.

Peoria, Ill.
Jackson, Mich.
Chicago, Ill.
Syracuse, N. Y.

Waterloo, Iowa
Minneapolis, Minn.
Columbus, Ohio
St. Louis, Mo.

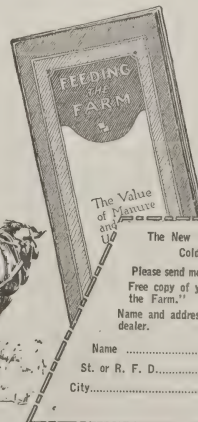


NEW IDEA
The Original Wide Spreading Spreader

"NEW IDEA" and "NISCO"—two trade-marks representing spreaders that are identical in quality, in principle, in design and in mechanism, except for some minor differences in running gear which adapt them to varying field conditions in different parts of the country.

NISCO
The Original Wide Spreading Spreader

STRAW SPREADING ATTACHMENT easily put on or taken off your NISCO Spreader. Gives two machines in one. Light and simple; one man operates it. Big capacity; spreads straw 8 to 10 feet wide. Ask your dealer about it.



This little book is very much worth while reading. Better fill the coupon out now.

The Value of Manure and Its Use

The New Idea Spreader Co., Coldwater, Ohio.

Please send me without obligation, Free copy of your book, "Feeding the Farm."

Name and address of nearest NISCO dealer.

Name

St. or R. F. D.

City..... State.....

McCartney National Bank

Green Bay, Wis.

Capital and Surplus, \$600,000.00

We are deeply interested in the development of Northern Wisconsin along commercial, manufacturing and agricultural lines. Write or call and see us.

Reference



This Bank

We want to buy 40,000 more small XMAS TREES, 1½ to 3 feet in height, to be shipped by Nov. 20, 1920. Trees must be young, green and bushy and tied 25 to the bundle. What have you? Write quick. Will also buy 15 more cars of trees 4 to 20 feet high. QUICK ACTION NECESSARY.

Potatoes, Hay and All Farm Products

Ship us at GREEN BAY—your natural market. We will sell for your account, or upon examination, make you a cash offer. Which will it be?

Green Bay Sells Everything
What Do You Want to Buy?

We will be your errand boy—call on us.

Platten Produce Co.

Green Bay, Wisconsin

Our Sewing Corner for Little Girls

(Continued from Last Month)

IN our last lesson we were unable to finish learning all the different stitches, and we still have quite a few left. These next stitches look more like fancy work when finished, to the small child, and consequently they are more eager to learn to do them.

This stitch is called the catch stitch. At the left-hand end of the canvas count four holes down and four to the right. From the under side point the needle upward and pull through. Count three holes down and three to the right. Point needle down and under this, one hole to the left, and pull through. Count four holes to the right of first stitch. Point needle down through next hole to the left. Pull through. Now we must hold up the canvas and look at our stitches. Are they not pretty? They look almost like crosses.

In order to learn how to do the hemming stitch, we first must learn two other stitches called overhanding and overcasting. In the overhand stitch we count six holes down and four from the right-hand end. Put the needle in from the under side and pull through. Count one hole to the left. Find the hole above it. Point the needle downward through the upper hole—bring it up to the right side through the under hole. Finish the row and fasten the thread on the wrong side by running the thread through the last few stitches.

In overcasting count one hole from the top of the canvas and two in from the end. Commence as for overhanding. Bring the needle out two holes to the left of first stitch. Fasten as in overhanding. The overcasting stitch is used to finish raw edges of material to keep them from fraying.

Now we must go on and learn our hemming stitch. In olden days hemming and overcasting were the first stitches in sewing our grandmothers had to do. They didn't learn to do fancy stitches, and they were given muslin to sew on. It was no practice work. So we may be glad we are learning to sew on canvas first before we try the lawns and muslins.

For the hemming stitch count six rows from the top and four over to the left. Point the needle up from the

wrong side and pull through. On the row of holes below, one hole to the left, point the needle downward, bring it up in the first row of holes, two holes to the left of the first stitch. Hold the canvas over the first finger and finish row. Fasten as in the overcasting stitch.

The finer the hemming stitch the neater the work looks and this all depends on how industriously our little girl works. But hemming is used on so many different garments today for outside wear that it is an art to be able to do fine hemming.

Our next stitch is an edge finishing stitch and is called the blanket stitch. At the left hand end of the canvas, four holes down and four to the right from the under side, bring the needle to the right side. Hold the thread under the thumb. One hole to the right, point the needle down, bringing it up in hole two threads below. Pull through. Finish the row. Fasten as in overcasting. Repeat this all around the edge of your canvas.

Along with the blanket stitch we have a sister stitch called the buttonhole stitch, and this is a stitch the many grown-up women do not know how to make.

For the buttonhole stitch point the needle five holes down, four from the left-hand end, from wrong side, and bring the needle to the right side. Then through the hole below the point the needle down and up through the one from which the thread hangs. Do not pull through. Take hold of the two threads in the eye of the needle and bring them toward you around under the point of the needle. Let them rest there. Then pull the needle through. With the left thumb on the stitch, pull the thread with the right and tightly down to the edge of the canvas. Repeat to the end of the row. We now have only one stitch left and that is the cross-stitch.

This is all for this time, but there are still a good many things to learn before we could go on and make a pillow cushion or a little doll's dress, but with a little practice I know that an little girl knowing the eleven stitches already taught could easily make a very good attempt at these and make a success.

Choice Cut-Over Hardwood Lands

Especially adapted to grazing and general farming, located on trunk line railways twelve hours from Chicago markets. For sale, in small or large lots, at reasonable prices, terms to suit purchasers. For particulars write

The Northwestern Cooperage & Lumber Co.

GLADSTONE, MICHIGAN

OUR Certificates of Deposit afford a convenient and secure manner of investing any desired amount—with the principal always available.

CITY NATIONAL BANK
of Duluth

The Northern Minnesota Farmer



HARVESTS
TWICE
A DAY

TWICE a day the farmer of Northern Michigan harvests the returns from his labors. The dairy cow on the natural and cultivated clover and root crops gives forth a golden yellow harvest that is as sure as night will follow day. Hail, wind, rust, nor frost can rob the Northern Minnesota farmer of his reward.



THE NATIONAL BANK OF NORTHERN MINNESOTA	
DULUTH MINNESOTA <i>November 1</i> 1920	
PAY TO THE ORDER OF <i>Jas. Smith</i>	\$ <i>118.85</i>
<i>One Hundred Eighteen and 85/100</i>	DOLLARS
No <i>815698</i>	CLOVERLAND CREAMERY
	<i>John Doe</i> GENERAL MANAGER

We have lived in Northern Minnesota a great many years. We know the lands of Northern Minnesota thoroughly. Through our operations we have acquired large acreage of lands. We will sell them in small or large tracts on a basis that assures you our interest in your success.

Cloquet Lumber Company Johnson & Wentworth Lumber Company Northern Lumber Company
CLOQUET, MINNESOTA



Make the "Dull Season" Profitable! Clear Your Land of Stumps NOW

Your crops are harvested and there is time for clearing a few acres of stump land before winter comes.

Take out the stumps now while you have the time and good weather favors land clearing. Join with your neighbors and increase your cleared acreage. Co-operate—work together—and use



RED CROSS 20% DYNAMITE

which is specially made for stump blasting. Tens of thousands of acres have been successfully and cheaply cleared of stumps by its use. This year it is doing this work on a greater scale than ever before. So great is the demand for food-stuffs today that land—practically valueless a few years ago—can now be cleared with dynamite and a handsome profit shown on the cost of clearing.

Don't delay—clear your fields now and have them ready for spring planting. Your dealer will supply you with Du Pont Dynamite and Blasting Accessories. See him.

Our Farmers' Handbook of Explosives will tell you how. It's free for the asking.

E. I. du Pont de Nemours & Co., Inc.

Branch Offices:

**M McCormick Building
Chicago, Ill.**

**Hartley Building
Duluth, Minn.**

Cloverland Potatoes Wanted

If you have for sale Sir Walter Raleigh or Green Mountain Potatoes, send at once full particulars of quantity and price F. O. B. cars to

RAY SMITH, President

REPUBLICAN HOTEL

MILWAUKEE, WISCONSIN

CITY VIEW FARMS

are offering high-class
Shropshire and Hampshire
Yearling Rams
Also Rambouillet Ram
Lambs

For Prices Write

W. G. MILES

Evansville

Wisconsin

EXPERT SHEEP MAN WANTS GOOD JOB

I have come to Cloverland after twelve years successful experience with western sheep. Best of references. Want a chance to work in with Cloverland sheep raiser in Michigan, Wisconsin or Minnesota. I specialize in wintering and shed lambing. Will be glad to correspond with you about my work. Address

JACK LAVELL

Care Cloverland Magazine
MENOMINEE MICHIGAN

Marinette Co. Clearing Demonstration

(Continued from page 5)

"The success of Marinette county in accomplishing this feat again puts the state in the forefront in the matter of accomplishment. Marinette County has completed a task the like of which the world up to the present time has not seen."

As has been stated, Marinette County put on its campaign to demonstrate the practical value of concerted land clearing according to the methods taught by the College of Agriculture. Mr. Livingston in his report very conservatively drew some conclusions in affirmation of the practical, economic worth of the work. An extract from his report:

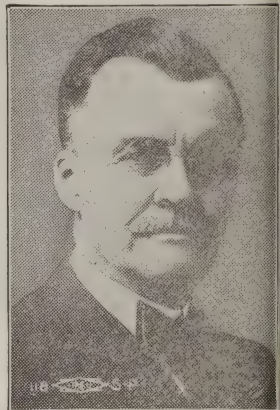
"It is of interest to many to note the actual saving in dollars and cents that our association has meant to the farmers of Marinette County. Considering dynamite alone, it is a conservative estimate to state that we have saved at least 5 cents a pound, or approximately \$15,000 on the dynamite distribution. This saving does not represent a loss to the dealers who formerly handled land clearing explosive; it does represent a saving by the elimination of the handling and distributing expenses through the direct distribution by the dealers to the consumers.

"This saving on dynamite is the biggest definite factor of economy, but we have also a proportionate saving on the costs of all other materials that our association has been instrumental in distributing.

"Another feature concerned with the work of our organization that should not be overlooked, is the estimated value of the educational work that our organization has afforded. It is difficult to produce concrete evidence of this saving, but our statement is justified by the fact that our farmers in Marinette County have cleared their land at a comparatively low figure that is not fully compensated for by the reduced cost of ma-

terials. Our educational work has value. This value is conservatively placed at from \$3 to \$5 an acre on a land cleared. This means a saving of approximately \$72,000 that may be included in our economic claim.

"Summarizing we may justly place the amount in the neighborhood of \$100,000 saved through the activities



Hon. Charles H. Everett, of Racine

of our land clearing organization. To this we may add the increased value of the land that has been converted to a productive state. It is extremely conservative to state that clearing a acre of land in Marinette County increases its value one-hundred and fifty (150) per cent. This adds to the average Marinette County acre at least \$60. The wealth of the county, therefore, has been increased \$1,050,000."

Fifty Counties in Upper Michigan Have Millions of Acres of Idle Land

CLOVERLAND is now on the map as the greatest live stock and dairy district in the United States today—it is the last frontier of America. Are you going to grasp the opportunity now or wait until prices begin advancing and eventually become prohibitive for the homeseeker or careful investor?

**Inquire Now;
Prices Are Low**

The Public Domain Commission of Michigan

WILLIAM KELLY, Chairman, Member Board of Control, College of Mines;
JUNIUS E. BEAL, Board of Regents, University of Michigan;
THOMAS E. JOHNSON, Superintendent of Public Instruction;
COLEMAN C. VAUGHAN, Secretary of State; **ORAMEL B. FULLER**, Auditor General;
WILLIAM H. WALLACE, State Board of Agriculture;
GEORGE L. LUSK, Secretary Commission and Commissioner of Immigration

Our
Women
Folks



Kitchen Kinks

Pastry should be rolled lightly that the air may not be pressed out of it.

Sweeten fresh sliced pineapple with honey and serve on lettuce with mayonnaise.

Immature meat, such as veal, lamb and pork, should be thoroughly cooked.

Muffins can be mixed the night before baking, but the batter must be kept in the ice box.

Renovate black kid by touching the worn spots with a camel's hair brush dipped in a mixture of olive oil and ink.

Try using chopped white cabbage instead of celery in tuna fish salad. Lemon juice always improves a white fish salad and may be added if liked.

Combine one cupful cooked rice, three-quarters cupful peanut butter, two cupfuls bread crumbs; season, make in a loaf and serve with tomato sauce.

A thin hand may be plumped by bathing in warm olive oil, together with a gentle massage. A heavy massage will dissolve the fatty tissue and defeat the object.

Save cold cream jars for jelly and jam. They hold just enough for an individual serving and for basket lunches can be tucked in without fear of breaking or spilling the contents.

Fashion Hints

Side belts are more popular than any other type.

Cape coats and coats on wrap lines are assured for children.

Black embroidery is much in evidence on colored materials.

Beaver and jade are two of the season's new and attractive colors.

The net blouse promises to continue a favorite during the coming season.

The latest novelties in the jewelry line are large Dutch brooches of silver.

Fancy flat braid outlines the tab-effects in front and back of some fitted suit coats.

There is just now a passion for simplicity—the plainest of shoes, the simplest of frocks, the most severe of hats.

To wear with dark blue or black afternoon dresses, much hosiery in pale gray suede and castor color is making its appearance.

Except in the most severe climates many women will continue to wear low shoes all through the winter, accompanying them with smart, fine wool stockings.

Metal effects in millinery trimmings are very popular and many greenish-blue tones, something on the peacock order but with a number of brand new names are in the limelight.

Selling Baking Powder
Backwards

A great grocer says:

"Every baking powder salesman that comes in here has the same argument—'As good as Royal.'"

"I wonder if they realize that they are the best salesmen on record for

ROYAL
Baking Powder
Absolutely Pure

Made from Cream of Tartar, Derived from Grapes
Contains No Alum. Leaves No Bitter Taste.

Upper Peninsula
Cut-Over Lands

Suitable for Grazing or General Agricultural Purposes

FOR SALE

in Alger, Chippewa, Gogebic, Luce,
Mackinac and Schoolcraft Counties

THE Northern Peninsula of Michigan is the best Livestock and Dairy country in the United States, if not in the world. It can care for 8,000,000 sheep and 1,000,000 head of cattle.

For information write

LAND DEPARTMENT, Charcoal Iron Company of America
MARQUETTE, MICHIGAN

Just Frills

Two-toned ribbon is being used for underwear.

Many autumn frocks are made of crepe de chine.

Paris shows a decided liking for simple suits of homespun cheviot.

The short dancing frock of velvet or georgette is preferred to the regulation ball gown.

Some of the new cloth wraps hang loose from the shoulder, being gathered across the back onto a yoke which is hidden by the deep collar of cloth or fur.

The only corset that is tolerated by a Frenchwoman at the present time is one of pliable rubber or webbing that covers the hips only or a portion of them, and serves to hold her garments in place.

Slit pockets are among the interesting developments on the newer suits. Three horizontal slits on either side of the front are smart when outlined with braid and are often the only trimming on a suit.

About the House

Iron round doilies from the center outward.

Dingy beeswax may be melted and remolded.

White silk should be washed with borax, in tepid water, with little or no soap. Iron before dry.

Dusty velvet may be very much improved by rubbing with another piece of velvet. This will not injure the surface, as brushing is apt to do.

If baby has a cold and cannot breathe through its nose, place a drop of warm petroleum oil in each nostril with a medicine dropper.

A new flower holder to place in a large bowl is black porcelain, from which extends an ornamental fence, upon which perches a bluebird, gazing into the water. Unlike the other birds, this one screws onto a post, making his position a safe one.

More than 85 per cent of the consumption of the nation's wealth is directed by women.

VON PLATEN-FOX LUMBER CO.

MANUFACTURERS OF

NORTHERN HARDWOOD

IRON MOUNTAIN, MICH.

A DEPENDABLE RANGE

is the goal of every stockman. With a dependable range he feels sure of success and secure against future adversity. A tract of select, cut-over land in Cloverland offers stockmen this opportunity.

Tracts to Suit Needs

We have several choice ranges among our holdings which we will sell to practical stockmen on terms that will be to his advantage.

CONSOLIDATED LUMBER CO.

MANISTIQUE, MICHIGAN

"In the Heart of Cloverland"

**A New Farm
In a Proven
Farming District
Insures Success**

**Inquire About
Ontonagon County,
Michigan**

Ontonagon County, Michigan

is an agricultural region sparsely populated with practical, successful farmers, who have had the advantage of a splendid clay-loam soil as the basis for farming. There are thousands of acres of this same type of cut-over land in Ontonagon County awaiting the settler, or big rancher. Most of the timber was taken off years ago, a greater portion of the land is open, and there is an abundance of clover and grass ready for range purposes, pasture and wild hay. The county's chief industry is agriculture, so you will be settling among farmers in Ontonagon County.

No Real Estate Game

The County Board of Supervisors of Ontonagon County are inviting you in this advertising space to inquire about their county, and they will give you official service in helping you find the location you want. Detail information may be had by addressing a letter or post card to

WILLIAM KROHN

County Clerk, Ontonagon County,

ONTONAGON, MICHIGAN

State Farm Bureau Has 80,000 Members

By J. P. POWERS

THE Michigan State Farm Bureau has developed along lines different from that of any other state farm bureau federation in the United States. Its activities are expanding into a greater business that co-operatively is handling many of the larger economic problems of its 80,000 members.

Practically every other farm bureau federation in the country is built largely along educational lines, with promotion of activities by groups of farmers in the state as the fundamental policy. Michigan has gone ahead in the belief that it is not just "how to produce more" that the farmers want to know, but "how to market and distribute better what they now produce" and then produce more to satisfy whatever surplus demand may be created by more efficient marketing methods. It is contended that an economic program cannot succeed without carrying with it an educational phase, but that an educational program may lose sight of the vital necessity for action in an economic or, if you please, a commercial way.

It was to make possible this program that the membership fee of the organization less than a year ago was put on a business basis. The old organization largely existed on paper. That was in the days when a dollar membership was asked. And what other status could be expected. Most of this \$1.00 gratuitously contributed in most instances by some 10,000 farmers in the different counties remained in the counties. The only money that came to the state office was \$50 fees from the different counties, forty of them. This was insufficient for even just the maintenance of a state office.

The solicitation for the \$10 memberships was not made from the viewpoint of memberships, but from the viewpoint of investments. And the farmers responded in a way that was virtually astounding. Eighty thousand enrolled in less than a year, fifty counties with well-knit organizations, numerous local co-operative associations established in those counties as community distributing agencies makes up a story that is mighty eloquent.

But \$5 a member from 80,000, which total within a few months will be in excess of 100,000, represents a lot of money. Many folks outside of Michigan are wondering what is being done with all of it and what is to be done with the like amount that is to come in in the next two years.

We'll try to tell the story briefly. The Michigan State Farm Bureau is divided into distinct departments, in addition to its office and publicity. They are marketing, seed, organization, traffic, wool and elevator exchange. There are approximately 90 people on the payroll today. Eleven months ago there were three.

A review of organization might properly come first as this obviously provided the foundation for the building of all others. This work began a year ago October with three counties willing to try out the \$1,000 membership campaign plan that had an awesome appearance to most. Six paid solicitors were put to work in one township in Oakland County, which happened to be the home county of Mr. C. A. Bingham, who has served as secretary of the federation since its inception. They signed up 92 per cent of the farmers visited that first day and from then on the campaign has continued uninterruptedly, with an augmented force that today includes approximately forty men and which is sufficient to make possible the working of three counties simultaneously. Roughly, the membership campaign plan provides for about a two weeks' preliminary advertising campaign, which includes newspaper advertising, editorial articles, and circular letters to every farmer in the county; then the organization of the townships in the county with local committees with a personnel that cor-

responds in size with the number of solicitors who will make the canvass. These local committeemen volunteer a day of their time and drive the solicitors about their particular section. Each county puts on a campaign manager and secretary to work in co-operation with the county agent in making the preliminaries for the drive successful.

The state organization about ten days prior to the start of the campaign sends into the county an advance man who directs the arrangements, continues in the county through the drive as the connecting link between the solicitors and the county organization and then remains about a week after the conclusion of the actual canvass to make sure that the county has organized its new membership into a well-knit business unit that may articulate and function. Each township in a county is organized separately.

There are 83 counties in Michigan, but of these only about 73 may be termed agricultural. The others are undeveloped. Approximately 60 counties have been canvassed. The membership today is close to 85,000 with prospects that by the end of winter the total will be in the neighborhood of 110,000.

One of the first business activities of the organization that has shown results for the members is the wool pool. More than four million pounds are in the four warehouses which are controlled by the state organization and this total in a short time will mount to approximately 5,000,000 pounds. The state clip is estimated at about eight and one-half million pounds. None of this wool has been purchased from the farmers by the farm bureau. It was first assembled at local points, which usually were co-operative associations and then shipped in carload lots to Lansing, where three of the warehouses are located, or Grand Rapids, where the fourth is situated. It is possible for farmers to get advances on their wools by borrowing from their local banks on the strength of their statements of wool received by the state farm bureau or from the bureau direct. This enables the bureau to control the wool in hand and gives it latitude to sell when most advantageous. Thirteen grades are being made and this service is one that has excited favorable comment from big mill buyers from all over the country who have come to Lansing in the last few

Ziegler's Chocolates

**Package Goods of
Paramount Quality
and
Artistic Design**

OXFORD DOWNS

**Yearling Rams and Lambs
Yearling Ewes, Breeding Ewes
of all ages.**

Write at once for prices

HIGHLAND STOCK FARM

W. D. MCGILL & SON, Props

**Breeders Pure Holstein, Friesian
Cattle and Oxford Down Sheep.**

TEMPLETON WISCONSIN

weeks. This curiosity as to holdings and quality seems to indicate that the present lethargy in the wool market will not continue much longer. The Michigan State Farm Bureau is expecting better prices in the market soon.

The big advantage of the pool as it is seen in Michigan is that it presented the good wools of Michigan being dumped on the market at a tithe of value. Few farmers are in position to store their own wool and would have been forced to unload irrespective of market conditions. The bureau gave them the opportunity to protect themselves in this respect and by the efficient pooling methods employed has encouraged a respect from buyers that augurs well for future years' sale of Michigan wools.

But the pool has not only a commercial side. Its educational features are numerous. Perhaps the most prominent is the opportunity it gave hundreds, who drove in their wool, to see how wool is graded by an expert, and why some apparent good wools are only fit for the discards, because of dirt, burrs, etc. It means a better wool clip in future years in Michigan. To further this educational side of the pool, the bureau made up sufficient displays of the different grades, with adequate explanatory literature appended to place one at every county fair in the state. These displays later went to the county agent's office for use during the year.

Perhaps the department which has engaged the most earnest attention of the members of the organization is the marketing. It was established in May and has scarcely had time in which to organize its activities into an efficient machine. However, it has filled orders for 450 cars of coal for freshening and 6,000 tons of fertilizer; also for binder twine and cotton seed meal. It does all of its business as a handling agency for the various county and local units, but not individuals, or in other words, the department merely buys or sells upon the order of one of these units and not on its own account, and to cover operating expenses, exacts a small commission.

There is another department that is an asset to all of the others, but of which little is heard, and much of its work is done unnoticed. It is the traffic. As in most other states, transportation

is a serious problem for the farmers, but this department has succeeded in anticipating car requirements in numerous sections and hastening shipments and deliveries of productions and supplies. It has proven to be an excellent intermediary in the handling of rate cases and claims. Freight bills of local and county units are audited by this department and frequent errors in charges are detected, and in this way many dollars have been saved for members.

The latest department is the elevator exchange which is founded on contractual relations with local elevators. Forty-three have agreed to affiliate. The exchange is managed by a board of control composed of seven members. Five are elected by the representatives of the local elevators and two appointed by the executive committee of the state farm bureau. This department has just been formed and has not yet started to operate. It is expected that it will be at least another month or two before it is in working order. The business of this exchange which like all other departments, will be done on a cost basis, will be confined largely to grain and beans, although possible hay and straw may be handled. The locals contract with the exchange to market all of specified products through it, and many of these locals are preparing to execute a similar crop or contract with their individual members.

As an auxiliary of all of these departments is the publicity or education as it is sometimes and possibly more properly called. This department carries the information of the development of all others to the members as directly as possible through a variety of agencies in printed form. It also conducts a speakers' bureau which endeavors not only to meet the requirements of rural meetings, but to promote cordial relations between urbanites and rural people through explanation of farmers' problems at city gatherings. It also endeavors to meet the requirements of county and local units and individual members and outsiders, in the way of information concerning activities of the organization.

It is obvious that for efficiency and the correlation of these many departments a connecting link is essential. This is supplied by the secretary's office in charge of which is C. A. Bingham. All activities are carried on under his supervision.

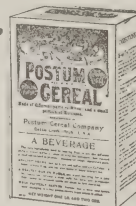
When Coffee Disagrees—Use POSTUM CEREAL

Coffee drinkers, who switch from their accustomed table drink, almost always turn to Postum because of its delicious coffee-like flavor.

There's no harm to health in Postum. Much as it tastes like coffee, there is no coffee in it. Boil Postum a full fifteen minutes, and you develop that rich flavor you so much like.

"There's a Reason" for POSTUM

Made by Postum Cereal Company, Inc., Battle Creek, Mich.



FURNISH MUCH FUEL

Cut-over lands are furnishing more fuel than they did as virgin forests. In the days when timber was king throughout the northwest, firewood was considered not worth the handling. Not so today, however, when the new owners of these tracts are

helping to solve the nation's fuel problem by means of winter cutting among the smaller trees that remain.

The potato bug is practically unheard of in England. But the growers have another peril to contend with in raising the tubers—underground rot.

1920 International Live Stock Show Vital to Cloverland

By B. H. HEIDE

"Cloverland" and the International Live Stock Exposition have a common purpose. Without live stock the potential productive capacity of "Cloverland" would be comparatively valueless. The mission of the International Live Stock Exposition (held this year from November 27th to December 4th) for twenty years past has been the promotion of interest in live stock improvement. It has discharged that function the trade must decide, but I am convinced that had the effort not been made the shelves of the nationalarder would now be comparatively bare of beef, pork and mutton.

As "Cloverland" needs cattle, hogs and sheep to develop the wealth with

which nature endowed it so does the American consuming public need the product it is capable of sending to market. The relation of live stock to profitable agriculture has been definitely determined. In "Cloverland", with its wealth of roughage and other feeds convertible into meat, animal husbandry is logically the most profitable.

The International Live Stock Exposition stands for improved live stock; "Cloverland" can use no other kind to advantage. The day of the scrub steer has passed. Unfortunately the country has raised too many nondescripts, a grade that never did

pay out if a tally had been kept. The quick maturing, high grade animal, a type developed through the instrumentality of the International Live Stock Exposition, is the profitable animal, costing little more to grow, but requiring parentage and care. The sturdy swine of the north country and the Wisconsin, Michigan and Minnesota lamb, finely adjusted by crossing half-bloods with pure-bred mutton rams command top prices on the Chicago market. In the future development of the live stock industry in "Cloverland", the aim of the producer should be to grow market toppers. A valuable object lesson in this re-

spect is furnished annually by the carlot show of cattle, hogs and sheep at the International Live Stock Exposition, where legible handwriting is placed on the wall.

Chicago is as vitally interested in live stock development in the region popularly known as "Cloverland" as are these sections of Wisconsin, Michigan and Minnesota in profitable cattle, hog and sheep production. The best is none too good either for the producer or the market. Quality counts and as nature endowed "Cloverland" abundantly in this respect, both as to soil and climate, so should it further the policy of the International Live Stock Exposition which insures maximum results.



We Want Settlers in Gogebic Co., Mich.

This county is making settlement of the land a part of its official business, and all settlers are directed to the County Agricultural Agent, whose expert services are to be hand free of charge in approving land selections, advice as to clearing, crops, cultivation, live stock growing and dairying.

The big iron mining district of Ironwood affords immediate market for all farm products at profitable prices. A mining community is a consuming community and is always willing to pay good prices for good farm produce.

There is no better opportunity anywhere in the country today to enjoy quick and satisfactory returns from the farm, especially if you have a few dairy cows and chickens.

There are thousands of acres of good farming land in Gogebic County that may be purchased at very low prices and on easy payments. There are good roads and intersecting roads which afford easy access to market, and splendid railroad facilities for shipping. There are good schools throughout the county, and churches that supply a social need not always available in more sparsely settled regions.

There are large tracts of standing timber adjacent to the cut-over land which may be purchased.

Gogebic County has all the natural resources—mining, timber, agricultural land. Could you ask for a better combination in seeking a profitable farm home?

FOR DETAIL INFORMATION WRITE TO

C. E. GUNDERSON

County Agricultural Agent,

IRONWOOD

MICHIGAN

Food Value of Milk for Growing Child

MILK is often stated to be a perfect food. By this we mean that it contains all the essential elements for normal human growth and development.

The value of a food or diet depends, briefly, on its containing the following:

1. Enough of the right sort of material to build up and repair the living tissues of the body. These body-building substances in the food are called proteins, and are found especially in milk, meat, fish, eggs and in certain vegetables, especially beans and peas.

2. Enough substances to furnish the required energy of the body. Fats, starches and sugars are the chief energy foods, and are transformed in the body into energy for work and into body heat.

3. A variety of mineral substances which are needed in the growth and functioning of the parts of the body, such as the skeleton, the brain, the blood, etc.

4. An adequate amount of certain substances whose nature is not yet fully known, but whose presence in the diet has been demonstrated to affect body growth in animals or man. These substances, known as vitamins, growth determinants, or the unknown dietary factors, are therefore essential elements in our food.

5. No substance poisonous to the average individual, nor one which will not allow of normal digestive processes.

In addition, to be properly digested and of the utmost nutritive value, articles of diet must also be of pleasing taste, palatable, and preferably of a consistency and appearance similar to the foods in customary use by the race.

Clean milk fulfills all of these requirements for an adequate food better than any other single foodstuff.

Milk is, then, in a sense, a complete food. If used as the sole food it will sustain life and allow growth. It is used as an exclusive diet for young children, but after infancy supplementary foods need to be included in the diet for the best development.

Many people think of milk as a beverage, but if they understood that it

CHARM NOT LASTING

When adding to the family collection of phonograph records, do not allow the short-lived "latest" songs prevent your choosing some of the old classical favorites and the folk-songs. These latter will sound as sweet five years from now, but not the former, which do not possess the lasting charm.

Meredith Believes in Cloverland

Hon. Edwin T. Meredith of Des Moines, Iowa, who succeeded David F. Houston as secretary of agriculture, has an intimate personal knowledge of the agricultural possibilities and present developments of Cloverland. Last summer when the Prickett herd of prize winning Jerseys was sold for something like \$30,000 Mr. Meredith was one of the party that passed on

the quality of the stock. Mr. Meredith was at that time actively engaged in his work as editor of Successful Farming. Accompanied by Hugh C. Van Pelt, a national judge of livestock, and Lynne P. Townsend, Mr. Meredith and his son visited the Roycroft farm in Houghton county, and made an automobile trip through picturesque Gogebic county.



The Tall Man in the Group Is Secretary Meredith

ROSECO
BRAND

Food Products

The Standard of Excellence in Greater
Cloverland,



Follow the Sign of the Rose

ROACH & SEEBER CO.

Wholesale Grocers

CALUMET, MICH. MARQUETTE, MICH. HOUGHTON, MICH.
IRONWOOD, MICH. WATERLOO, WIS.

in reality a nourishing food they did increase their daily allowance. So you know that one quart of milk is equal in protein to:
 1 ounce of sirloin steak,
 1 ounce of round steak,
 3 eggs,
 16 ounces of fowl;
 or that in energy one quart of milk is equal to:
 1 ounce of sirloin steak,
 2 ounces of round steak,
 1/2 eggs,
 0.7 ounces of fowl?
 These figures should make every other stop and decide whether her daily is using as much milk as it will.
 Buttermilk today is used in many ways as freely as milk. It is a pleasant drink and a nourishing food. Buttermilk contains practically all the material of whole milk with the addition of fat, most of which is retained in the process of churning. People are beginning to realize that it is much better to drink a glassful of milk or buttermilk than it is to consume other drinks having little food value.
 Prepared buttermilk is usually made from skim milk and has all the chemical properties of buttermilk. If it is turned as is usually the case, it loses in appearance and flavor with 1 buttermilk.
 Skim milk is often neglected and undervalued because many people do not realize how nutritious it is. It may be used to advantage in cooking in many different ways, especially in vegetable milk soups. Cottage cheese made from skim milk and this furnishes a convenient and economical means of using skim milk as human food. Cottage cheese is a very good at substitute.
 Of all foodstuffs, milk is the cheapest and most abundant. Since growth is measured by bone formation and the child must have a steady abundant supply of essential minerals from these bones, milk should be included in every child's diet. Milk is, in iron, so that must be given to the child in the early age of life in the form of fruit, vegetables and whole cereals.
 Of course, we must consider the appetite in many cases. Some children do not care for milk. However, this does not mean that the child should be allowed to refuse milk as a substantial part of his daily diet, if the diet includes, as it should, several other forms of food. All normal children can easily consume at least one quart of milk a day, and it is the lack of it in the children that is usually that much talked about fact, malnutrition.
 Milk may be given to a child in any form, as soup, weak cocoa, in puddings, custards and other forms.

Vegetable Milk Soup.
 1 qt. spinach (4 oz.)
 1 thin slice of onion.
 1 slice stale bread (2 oz.)
 1 quart skim milk.
 Put the spinach and onion through food chopper, following them with bread, in order that there may be no waste. Put into a double-boiler the milk and cook until the spinach is tender.
Egg Nog
 1 egg, beaten until very light.
 1 teaspoonful sugar.

Homemade Cake
 is never so delicious as when it contains the rich, true fruit flavors of

Van Duzer's
Certified
Flavoring
Extracts

These extracts are the concentrated goodness of fresh fruits. None of the flavor is lost in baking.

Van Duzer Extract Co.
 New York, N. Y.
 Springfield, Mass.

Pinch salt.
 Vanilla, or nutmeg, or fruit juice.
 1/2 cup milk.
 Beat egg until light and creamy, add sugar, salt and flavoring. Mix thoroughly, add milk and strain.
 Another recipe for egg nog which is very good is as follows:
 Separate the white and yolk of one egg.
 Beat both separately, the white until stiff.
 1 tablespoon sugar.
 Flavor with vanilla, nutmeg or fruit juice.
 Fill the glass three-quarters full with milk and add the sugar, flavoring and egg yolk.
 Fold in the beaten white of egg, keeping out just a little to put on top before serving. This makes a very attractive and appetizing drink.
Hot Cocoa for Children.
 4 teaspoonfuls cocoa.
 1/2 cup boiling water.
 A shake of salt.
 1 cup scalded milk.
 2 tablespoons cold water.
 Moisten cocoa with cold water, and add boiling water. Boil one minute. Then add scalded milk. Beat rapidly for a minute to prevent the scum from rising and to form the frothy cup. Drop one marshmallow in each cup when served.

A Teacher's Opportunity

By WILLIAM MATHER LEWIS

THE strength of the United States depends upon the practical patriotism and sound economic thought of her future citizens. These characteristics must be developed in the daily life of the school.

Economists agree that the universal adoption of habits of intelligent saving will strengthen our nation tremendously. When every wage earner has a reserve fund of money the country will be sound economically, socially and politically.

The teacher who encourages pupils to earn money and to invest in Thrift stamps and War Savings stamps is doing much for their economic strength and practical patriotism.

Each child who buys stamps feels a partnership in the government; he learns the wisdom of investing his money in securities that are absolutely safe; he becomes familiar in a practical way with compound interest; and as he sticks stamp after stamp upon the card, he has a visual demonstration of how savings grow.

Faith without works is dead. Thrift without safe investment such as Government Saving Securities, is robbed of its benefits. Its virtue lies not only in its principles but in the actual practice of investment.

Each year thousands of boys and girls in the United States are deprived of a college education because they lack money.

You can remedy this situation among your pupils by starting them on the road to saving early in life and encouraging them to safeguard these savings in Government Securities.

You are rendering real service to your country by promoting the sale of these stamps. The burden of war debt still is heavy and the government must still borrow money.

Add to your influence as a teacher. Promote sound economic thought, practical patriotism and prosperity by encouraging your pupils in the regular purchase of Thrift stamps and War Savings stamps.

BUTTERFAT FLOW RUNS INTO MILLIONS.

THE Minnesota dairy cow keeps on paying the freight. Two hundred one co-operative creameries in different parts of the state paid an average price of 63.3 cents a pound for butterfat brought in by dairymen during the month of June. The average pounds of butterfat received per creamery for the thirty days was 19,727, or a total of 3,965,127 pounds.

Only the 201 of the 640 co-operative creameries in the state reported to A.


Nature Responds

Nature is on your side every time you eat

Grape-Nuts

For this sturdy blend of wheat and malted barley supplies body and brain with just the elements of nutrition that Nature demands for health and vigor.

Grape-Nuts is a Sugar Saver
"There's a Reason"



Fairland Stock Farm

offers Hampshire and Shropshire rams and ram lambs by the carload or singly in crates at just a little above mutton prices; also a few ewes and ewe lambs.

D. J. STAHLY, Proprietor
 Middlebury
 Indiana

First National Bank of Iron Mountain
 Iron Mountain, Michigan
 Resources Over \$1,600,000

Officers:
 E. F. Brown, President; J. C. Kimberley, Vice-President; W. J. Cudlipp, Second Vice-President; F. J. Oliver, Cashier; Leo H. Mortensen, Assistant Cashier; J. W. Franson, Assistant Cashier.

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"Love & Sympathy"

Truly Expressed by
 Flowers or Emblems

from
DULUTH FLORAL CO.,
 Duluth, Minn.

Willow Row Hampshires

Our flock is one of the oldest and largest of this popular breed in Illinois. Only the very best imported and home-bred rams in service. Write for prices on what you want.

R. J. McKEIGHAN & SON
 Yates City, Illinois

FARM LANDS

I am a farmer myself, work a 1,200-acre farm each year, so I know what farming land is. I know what a farmer wants. I have a large acreage of unimproved farm land for sale and guarantee satisfaction.

Write to me.
J. W. Weston
 Proprietor,
 Oak Ridge Dairy
 WAKEFIELD, MICHIGAN

J. McGuire, of the agricultural extension division, University Farm. Mr. McGuire is calling on buttermaking co-operators to work together "in a big way." They must make a more uniform grade of butter, he says, build up the weaker creameries, go out for more adequate laws promoting the manufacture of only good butter, and, last but not least, they should develop the most efficient and profitable system of marketing.

The Keweenaw Land Association Ltd.

— OFFERS —

Cutover Lands

in Chippewa, Dickinson, Iron, Gogebic, Ontonagon and Houghton Counties in the Upper Peninsula of Michigan in tracts to suit

Clay loam, sandy clay loam, sand loam and sand soils at \$5.00 to \$15.00 per acre.
Generally well watered.

J.M. LONGYEAR, *Agent*, Marquette, Mich.
D. S. DEAN, *Treas.*, 87 Milk St., Boston, Mass.

HAY, GRAIN SHOW IN CHICAGO

CLOVERLAND hay and grain should be shown at the International Hay and Grain Show, Chicago, Nov. 27 to Dec. 4.

We should participate in the \$10,000 offered in prizes. Individual prizes for the various classes of farm crops are the largest at this show of any similar show in America.

What it takes to win! First: You must have a product free from plant diseases, a product properly matured, that has been handled in such a way as to give it a minimum of damage from weathering and similar causes. Second: You should so clean your sample that each individual kernel looks like every other one in the same sample. Merely fanning is not suffi-

cient. Every sample worth showing is worth hand picking.

What to show: Wheat, spring, winter, red or white; barley, two- or six rowed; oats, white or yellow, other than white or yellow; rye, rosen, h. alfalfa, clover or timothy.

How much to show: One bushel of hay or one full peck of grain. An exhibitor can show in as many classes as he desires but only one entry in each class.

The premium list giving the prizes offered in each class has not yet been printed. As soon as it comes from the press copies can be obtained through your county agent or by writing to the Upper Peninsula Experiment Station, Chatham, Mich.

Land Clearing Advice

HERE is a boiled down discussion of land clearing methods. Some uninformed person may ask you about it some day, so paste this on your windshield:

Steps in land clearing—Cutting down trees, brushing, collecting dead and down timber for burning, blasting and pulling stumps, burning stumps.

Cut the trees down and get them out of the way.

Cut brush with brush scythe or other suitable tool and pile it up as cut.

Collect dead and down timber and pile it for burning.

Utilize all trees and down timber for fuel, it's worth while.

Blast stumps as preparation for stump puller.

Stumps once out of the ground should be arranged in high, narrow piles and burned as soon as they are dry.

Stump removing is the most important job. It is preceded by blasting with 20 per cent dynamite, using either fuse or electric blasting machine. The

dynamite splits the stumps and makes them easy to remove with a team or horse power puller, of which there are several makes and styles.

Saving \$500 a Week

THE nineteen creameries in P. County are saving \$500 a week as a result of the action of John Klink, county agent, in getting them to sell their butter co-operatively in carload lots.

"Not only do our creameries save money in freight charges but we get a quicker service. With carlots there is no reloading at junctions. The butter goes directly to New York. The quicker service is especially valuable on the falling market. In case of a strike the carload will go through with a permit while a local shipment is likely to be held up or delayed."

"Our creameries are small and in some cases as many as seven combine and ship together. Our saving amounts to about 36½ cents a hundred or less than 75¢ for each car of butter."

"Any group of creameries can do this," declares Mr. Klink.

MILWAUKEE STOCK YARDS

The Competitive Live Stock Market of Wisconsin

DAILY CAPACITY: 15,000 HOGS, 2,000 CATTLE, 2,000 SHEEP, 7,000 CALVES

All Classes of Live Stock in Active Competitive Demand. Chicago Market Prices Obtainable at a Considerable Saving in Transportation, Yardage and Selling Expense.

Receipts for Year 1919 (Our Banner Year) 584,555 Hogs, 107,564 Cattle, 290,586 Calves, 64,822 Sheep, 16,119 Cars

90 per cent of the Wisconsin Live Stock Shipments billed to Chicago pass through Milwaukee. *Why not patronize the Milwaukee Market?* We have the facilities and have not advanced the price for the handling of shipments, yardage or dockage. Dairy cattle and calves a specialty

Unexcelled Market for Milkers and Springers

MILWAUKEE STOCK YARDS COMPANY

Correspondence Solicited

MILWAUKEE, WISCONSIN

A Real Plan to Aid Settlers

Investigate! Read Our Plan. Investigate!



WE ELIMINATE THE FIRST FEW YEARS OF HARDSHIP.

We have set aside a fund to help you clear the land or have a portion cleared and under plow if you want it.

We provide a residence and farm buildings, horses, cows, sheep, pigs, chickens—everything needed to settle right down and go to work to make the land and live stock pay for your farm home, if you want to start this way. Or, we will sell you the unimproved land if you prefer to do all of your own clearing, build and stock your own place. All deals on easy, long-time payments.

We have three classes of land—first class, medium, and second class. You pay for the CLASS of land, and not a big price for poor land.

We give you expert advice in agriculture and live stock production free, in order to help you avoid mistakes and succeed in the shortest possible time. The more we can help you pay out the quicker our money is returned and the sooner you will have that coveted possession—a farm home of your own. This is good business for both of us.

RANCH LAND

We have thousands of acres of splendid grazing land with plenty of fresh water streams and lakes and ample sections of good farm land for raising winter feed. This land is cheap and we will make it to the advantage of the larger live stock operators to obtain one of these dependable ranges. These tracts in 1,000 and 5,000 acres solid blocks.

SEND FOR BOOKLET AND COMPLETE INFORMATION
A POSTCARD WILL BRING IT

NORTHERN MICHIGAN LAND COMPANY

MANISTIQUE, MICHIGAN

309 Caswell Block, MILWAUKEE, WISCONSIN

Cloverland Bargains

RATE: Seven Cents a Word

Copy for the Cloverland Bargains column must be in the office not later than the fifteenth of month preceding publication. Address all want ads to the CLOVERLAND MAGAZINE, Cloverland Bargains Dept., Menominee, Michigan

REGISTERED HOLSTEINS FOR SALE—

Three of the best cows in Vilas County at a very low price if taken at once. Polly Vilas Gerben No. 245842 H. T. H. B.; Daisy Fern Gerben No. 427883 H. T. H. B.; Doty Lake Gerben No. 427884 H. T. H. B. Also some yearling heifers. For prices and information write, Chas. R. Gerber, Phelps, Wis.

HONEY—Best Michigan clover. Ten-pound ball parcel post, \$3.90; five-pound post, \$2. Cash or C. O. D. B. F. Kindig, East Lansing, Mich.

A WONDERFUL BARGAIN—680-Acre tract of choice cut-over land, clay soil, free from stones and very easily cleared, a few miles north of Ewen, Ontonagon County, Michigan. Must sell at once regardless of price. H. Lillquist, Ironwood, Michigan.

WANTED—Position as working manager with someone on large tract of land to be developed into a live stock farm. Have had an agricultural college training and life-time experience on large live stock and grain farms. Prefer to work on salary and percentage basis. Will invest some in good proposition. Best of references. Address, Address, Box 84, care Cloverland Magazine

WANTED—Position as farm manager or tenant on good farm. Have had considerable farm experience and can take care of dairy, cattle, horses and pigs. Also have one live cow, three calves, boys—a family of wife and five children, all experienced in large garden work and some farming. Write at once, William Pritsley, Carter, Wisconsin.

FARMS WANTED—To sell your real estate business or patent quickly for cash, write Northwestern Business Agency, Minneapolis, Minn.

SHEEP for Cloverland farmers. Will place ewes on shares with reliable farmers and give you an opportunity to start in the sheep business and at the same time make money. If you want to buy sheep, write us for prices. Can arrange satisfactory terms. Cheever, Buckbee, P.O. Cloverland Sheep Corp., 719 Ludington St., Escanaba, Mich.

IMPROVED FARM—100 acres, one-half mile of lake shore, good house, stone basement, mile from town on good road, 20 acres cleared, 40 acres fenced, quantity valuable cedar and birch, price includes crop, 30 acres potatoes, 10 of oats, \$6,500. Fred L. Brown, Mercer, Wis.

WANT TO HEAR from party having farm for sale, give particulars and lowest price. John J. Black, 177th St., Chippewa Falls, Wis.

FRED Wisconsin Bulletins—Soil, climate and crops. Immigration Bureau, Wis. Dept. of Agriculture, Capitol 5, Madison, Wis.

OCOONTO COUNTY, WISCONSIN—The garden spot of the Universe. If at all interested you should at once become acquainted either by way of a visit in person or correspondence with me relative to my most improved and best quality, either improved or unimproved hardwood timber farm lands. The best quality of productive clay loam soil, with excellent climate conditions produces unfailing big crops of diversified grains, alfalfa, clover, sugar beets, potatoes, fruits. Dairying very highly developed, the best of modern environments by way of church, school, cheese factory, grain and live stock markets, improved farms immediate to hand. At bargain prices thereupon. If interested better act at once for prices are destined to enhance in value rapidly. Charles A. Best, Oconto, Wis.

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FOR SALE—250,000 acres of unimproved cut-over lands in tracts to suit purchaser. Prices \$5 to \$15 an acre, terms reasonable. Address J. M. Longyear, Marquette, Mich.

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WANT TO HEAR from party having farm for sale, give particulars and lowest price. John J. Black, 177th St., Chippewa Falls, Wisconsin.

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HAMPSHIRE—Am offering my entire flock of breeding ewes, lambs and yearling rams. Also Champion and third prize ewes of 1918 International. Write for catalog and special prices of cash lots. Mrs. Harley R. Emmons, Elsie, Mich.

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FOR SALE—Upper Peninsula cut-over lands suitable for grazing or general farming. In Alger, Chippewa, Gogebic, Luce, Mackinac and Schoolcraft counties. For information write, Land Department, Charcoal Iron Company of America, Marquette, Michigan.

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THE BRAVE PUG

A CHILDREN'S STORY—By CLARA PETERSON

IT WAS very early in the spring, but Mrs. Thrush had decided to build a nest in the lilac bush. Piney, the pug dog, sat in the path and watched her. They were very fond of each other although Mrs. Thrush did not let the little dog know that she liked him; he was quite conceited as it was.

Piney Pug had a pink ribbon around his neck. He had a funny round head and a funny round nose right in the middle of his little black face.

Mrs. Thrush was working so very hard over the nest that finally it annoyed her to see Piney sitting in the sun without a thing to do.

"It's no wonder they call you a lap dog," she twittered. "Never did a bit of work in your life. You can't bring the basket from the grocery; you can't scare away tramps; I don't believe you could even catch a mouse."

Mrs. Thrush looked very cross as she said this. She ruffled up her speckled breast and hopped away for a bit of string lying in the garden. Piney Pug got up and walked slowly after her. He was sad, for Mrs. Thrush had never scolded him before. The bird stopped, and Piney stopped too.

"I—I don't want you to think—" he began.

"You can't keep me from thinking!" snapped Mrs. Thrush. "I think I hear an earthworm right here."

She cocked her head. Then she hopped around in a little circle on the soft ground. In a moment a fat earthworm stuck out its head, although Piney could not see it until Mrs. Thrush had braced her feet and pulled it up, twisting and squirming. She began to eat.

"You are so smart," said Piney sadly. "How did you know that worm was there?"

"Do you think I can't hear?" asked Mrs. Thrush. "I heard him moving under the ground, and to make him come up I just hopped."

"Hopped?" said Piney stupidly.

"Yes, hopped!" jerked Mrs. Thrush, pulling at the string, now she had finished with the worm. "Did you ever hear of a mole? I suppose not—cream and pink ribbons are all you know about. (It was quite a shame how cross she was.) Well, moles are little brown animals that live under the ground and eat worms. When the worm hears a noise he thinks a mole is after him and hurries up into the sun. When I hopped over that worm I heard moving, he thought it was a mole, and up he came, straight into my mouth. Now you'd better run back to bed; I'm busy."

Piney got up, but he did not go to bed; he walked to the end of the lawn

and sat down beside the tool-shed. Suddenly Piney's eyes grew bright, to there under the shed was a hole! Piney sniffed—perhaps it was a mole hole! O, for a chance to show Mrs. Thrush that he—

It was at that very second that big fat rat stuck his head out of the hole. He was carrying part of an ear of corn and it was so heavy that he did not look up. Out he came. Piney jumped and seized the rat between his teeth.

"That's the end of you, Mr. Mole!" he growled.

Mrs. Thrush did not even look around when Piney came trotting along. She was trying to pick up large piece of fuzz.

"Isn't it time for your nap?" she snapped.

Piney did not answer. He walked around in front of her and swung his head back and forth so that the rat dangled before her eyes. Mrs. Thrush skipped away and her wings fluttered.

"O, my goodness, gracious me. You brave, brave dog! What a big fellow O, how did you do it?"

Piney was too busy to talk. For half an hour he played with the white Mrs. Thrush sat on a twig and admired him. At last the little bird spread her wings.

"Good-bye, brave Piney," she called. "I must fly over to the meadow."

Piney said good-bye and sat down with the rat between his paws, but Mrs. Thrush was no sooner out (sight than around the lilac bush came a cat—a little fuzzy white cat. She stopped and looked at Piney, the she looked at the rat.

"The idea!" she stormed. "The very idea! That was my rat. You got him under the tool-shed. I know the hole. I was saving him till he got fat enough to eat."

She was so angry that her eyes looked like green fire. Piney drew back his head and let go of the rat but the cat came up close and boxed both his ears with her little paws.

"The very idea—my rat!" she scolded again.

Then she picked up the rat in her teeth and ran down the path. Piney watched her. So it wasn't a mole after all!

The little dog stood up; it was time for his saucer of cream. He looked toward the lilac bush. Mrs. Thrush had not returned; she did not know that a kitten had boxed his ear. Someone still thought he was brave.

Minnesota contains 7,000,000 acres of peat land, an area that comprises one-eighth of Minnesota's surface.



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MAGAZINE

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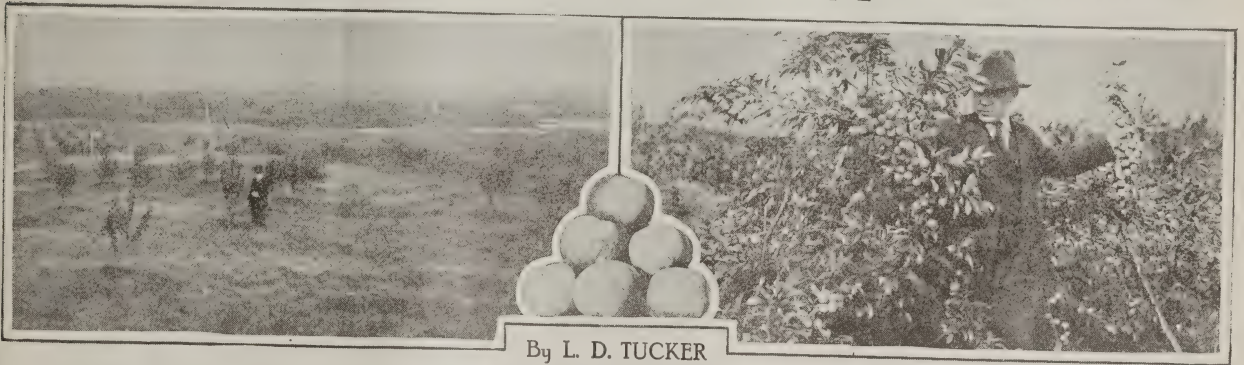
Published Every Month at Menominee, Michigan

Vol. XV No. 4

MENOMINEE, MICHIGAN, DECEMBER, 1920

\$1.00 A YEAR, 10c THE COPY

Fruit Growing Profitable in Upper Peninsula



By L. D. TUCKER

UPPER MICHIGAN'S "Indian summer"—a period of belated frost which, natives declare, has not been equalled in a decade or more, has created a veritable revelation to the few who are actually interested in fruit. It has proven that, under favorable conditions, the region "north of the straits" is not only particularly adapted to fruit raising, but that, in the more protected regions, a grade of fruit—apples, peaches, plums and pears, particularly—equal to the best the country produces, will thrive.

The present season produced a bumper crop in apples, that product leading all others, as far as fruit is concerned. A survey of conditions brings out the fact that, of all other grades, the Wealthy—a type particularly adapted to the north country—can be cultivated to produce a record crop in upper Michigan. And this for the reason that the Wealthy has proven one of the most hardy type of apples which has thus far been tried out in northern Michigan.

From the cultivated orchard to the neglected, backyard variety of trees come reports of unheard of results with fruit this year. And the varied results secured throughout the peninsula more than ever verifies the fact that fruit, as a "temperamental" crop, is deeply sensitive to conditions of soil, climate, and, yes, even the very currents of the air.

Unlimited Possibilities.

A recent survey of the fruit situation in Baraga county, upper Michigan—particularly in and around L'Anse, Mich., a region widely known for its excellent fruit possibilities, convinces the horticulturalist that here, possibly is offered unlimited possibility for the cultivation of fruit.

The Von Zellen orchard, at Skanee, a short distance from L'Anse, is a splendid example of what fruit will do in northern Michigan under favorable conditions. Apples, plums and pears, set out over fifteen years ago, came forth in such quantity this year that the owners, for a time, questioned the likelihood of disposing of the mammoth crop. Apples, particularly, displayed a tendency to produce in

such volume that it was found necessary to prop the lower branches of the greater number of trees, to save the limbs from fracture.

The Wealthy predominates at the Von Zellen farm, although various other types showed up exceedingly well. Of the 150 or more trees set out, the Wealthy displayed the best type of fruit—fruit not only pleasing to look upon, but of the kind which made famous the expression "like mother used to make."

Pears and Plums, Too.

Other sections of Baraga county were equally productive. The settlement of Skanee, with its 500 farmer families, produced the largest apple crop this year in its history, with pears and plums in corresponding quantity and quality.

The operations at the Northern Orchard property, located in Marquette county, are, perhaps, typical of the

kind of management necessary to produce the best results. The trees, 4,300 in all, were set out five years ago by Leo M. Geismar, at present agricultural agent for Houghton county. There 3,000 apple trees, 1,000 cherry and 300 plum. In selecting the site Mr. Geismar displayed his knowledge of the possibilities for fruit in upper Michigan, for the orchard is located on a plateau of about seven square miles in area, at an elevation of 150 feet above the surrounding country, thus affording excellent air drainage on all sides.

Although the Northern Orchard was begun primarily as an experiment to bring out the best in fruit, under careful attention and favorable geographic and climatic conditions, so promising did the layout look this year that the officers of the company are seriously looking forward to the next year or two for the establishment of a profitable enterprise. During

the past two years the orchard has more than paid for itself, much of the product—cherries, plums and apples—going to the local market.

Untouched by Frost.

The light sandy soil and the freedom of the site from most of the disadvantages which beset the fruit grower in the cooler latitudes, brought an almost unlooked for degree of success to the operators this year. Though the fruit was permitted to remain on the trees until thoroughly ripe, not once was any part of the orchard touched by frost, and, more than that, potatoes and other truck crops planted in the valley were green and healthy long after the same crops, in other sections, had been harvested to avoid a possible early frost. It is merely an example of the wise selection of land, and the proper, intelligent management of tree and crop that has stamped the Northern Orchard as one of the most worthy horticultural enterprises now maintaining in upper Michigan. Lack of efficient help curtailed, somewhat, the program outlined by the officials of the company this year, but in spite of the fact the trees continued to thrive and the crop to increase.

Similar to Door County.

The Garden peninsula, that neck of land jutting almost directly south from Delta county, into Lake Michigan, is another splendid type of a section particularly adapted to fruit. And it is a significant fact that the Garden peninsula is but the extension of the now famous Door county section, in Wisconsin, long noted for its big fruit crops, particularly cherries.

Three islands—Washington, Summer and Little Summer—separate the Garden peninsula from Door county, Wis., with but a comparatively slight expanse of water intervening. A study of conditions in both peninsulas has brought out the fact that the soil construction, geographic features and climatic conditions of both the Garden peninsula and Door county are similar. Wild fruit and berries of various kinds abound throughout the



Wealthy Apples Are Market Favorites

(Continued on page 27)

CLOVERLAND MAGAZINE

Marathon Is the World's Greatest Dairy County

By F. G. SWOBODA

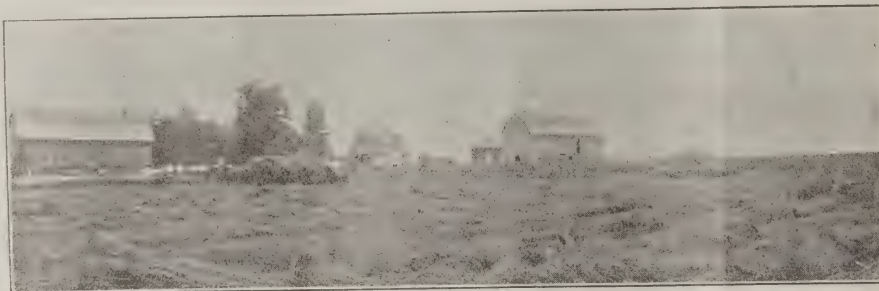
WHEN that part of the universe embraced within the geographical limits of Marathon county, Wisconsin, was created, provision was made to suit the most varied needs of an exacting agricultural population. In due time man came along and in the parcelling process which divided the great state of Wisconsin into seventy-one political units Marathon was endowed with territory in excess of any county in the state, truly a magnificent heritage.

An energetic citizenship is now working zealously in season and out to make of Marathon the greatest agricultural county in the nation and to definitely establish the title "World's Greatest Dairy County." Uncle Samuel's enumerators credit the county with 6,058 farms. An increase of a thousand during the last ten year period and two thousand more than a score of years ago. Truly wonderful have been the strides made toward agricultural supremacy.

With less than twenty per cent of its total area under plow, the county ranks more than favorably with other Badger State counties.

In dairy cattle her position is third being surpassed by two old established dairy counties, Dane and Dodge. Better than fifty-four thousand head of dairy cows supply milk to her one hundred eighty-six cheese factories and creameries and to the whole milk demand of Wausau and the smaller cities and towns of the county. Total annual value of dairy products is \$7,200,000, a tidy sum realized through an individual effort computed by government experts at \$134 per cow.

Ranking second among the counties of the state in hay production with a



Fields Like This Enable Marathon County to Rank Second in Wisconsin in Hay Production

total yield of 160,598 tons, the county is well able to provide the necessary feed for these dairy cattle and the 42,720 other head of cattle owned by her residents.

But dairy cattle do not constitute the county's entire claim for live stock supremacy. In addition to the cows the county boasts of some 52,330 hogs and 17,716 sheep. In the number of horses and mules the county also ranks third, this four legged source of power carrying a value of \$2,181,424.

While each of the other classes of live stock will continue to contribute their share toward the annual agricultural income, and the faithful hen will also add her mite, the dairy cow will undoubtedly continue the main source of revenue. To that end every effort is being put forth to improve the efficiency of the dairy machine.

Close to a thousand pure bred sires or better than 35 per cent of all the sires in use are owned on her farms, Holsteins, Guernseys, and Brown Swiss predominating. Organized on a unique plan the several breed associations are putting forth strenuous efforts in the fight to banish the scrub. The County Holstein association, with a membership of close to two hundred in eight local clubs, is the strongest of the breed organizations. Guernsey breeders rank second with about seventy members in five local clubs. Brown Swiss breeders also boast of a flourishing organization. Members of both organizations purchased more high class cattle during the year than were brought into the county during any similar period of its history. Numbered in the Holstein purchases a thousand dollar son of a twice thirty pound cow, several sons of cows with records from 25 to 30 pounds, also several with good yearly records. In one purchase for a farmer-breeder were ten head at an average of \$850 per head, the list including a \$2000 daughter of "Sir Piet." Two local introduction sales resulted in the bringing of close to \$20,000 worth of registered animals. To this must be added many thousand dollars worth of stock bought at private and public sales.

In addition to two carloads of registered animals, sold to farmers of the county at two introduction sales, and as many more bought at sales held outside of the county, Guernsey men purchased more high class sires than were bought in the county's entire history. In the list is a Dairy Cattle Congress Junior Champion, bought at a long price, a \$2,000 son of Lanewater Pencord, a son of the first \$10,000 bull, and several others bought at a slightly lesser figure but from dams with A. R. records between 500 and 600 pounds of fat.

Brown Swiss interest has also developed surprisingly. Following the

formation of the County association more registered sires were bought in than in the preceding five years in the county's history. Jersey and Ayrshire breeders have also been on the alert, though in a less extensive way.

Through the efforts of Cow Testing associations, in the organization of which the county leads the state, the cause of better sires has been strongly boosted. Three of the associations were 100 per cent for registered sires.

The associations also did much to stimulate the effort towards better dairy methods, both as to care and feeding. While the straw stack cow and her sister the "hemlock tops" cow have not been entirely banished from the county, their numbers are happily growing less.

Despite the high cost of materials building of big red barns has experienced little if any set back the past few years. The county boasts an unusually excellent number of farm barns, every one of them fitted with modern steel equipment, with water buckets. Remodeling of barns erected a decade or so ago, fitting them up with cement floors and steel equipment has been a common diversion. Even the "twenty dollar" stall did not seem to daunt the dairymen in their desire to have the best. With the barns have come silos. Close to three hundred wood stave, cement stave, and tile were built during the season of 1926. This has brought the county's total to the fifteen hundred mark far from where it ought to be but far in excess of what it was a few years ago.

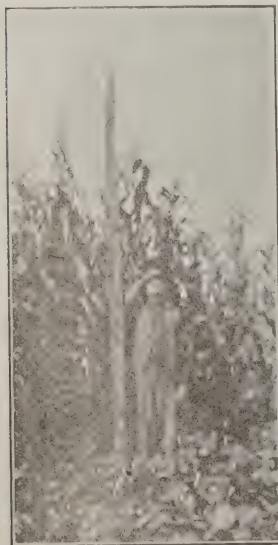
Hand in hand with the development of the farms has gone the development in other lines. No progressive movement projected in the state but what finds its counter part in Marathon

county. The county boasts a well organized Teachers' Training school, in point of attendance, reported the largest in the state; a \$150,000 tuberculosis sanitarium, a county asylum for chronic insane; a county home and hospital, with 1,200 acres of land; a live wire Chamber of Commerce, co-operates with similar organizations in many of the smaller cities of the county; two county nurses instead of the one required by law, a Home Demonstration Agent, working with the women and girls of the farm, an agricultural agent, a county Y. M. C. A. secretary, working with the boys of villages and farms. With all these agencies and its unsurpassed natural resources, the county's agricultural and dairy future is abundantly assured.

Mention must also be made of the active part which banks of the county take in pushing all worthy enterprises. With a capital stock of \$2,019,000 and deposits of \$13,673,000 the twenty-one banks are backing the county's development to a unit.

It is significant that two separate Marathon county dairy associations can boast of four cows each which won a place in the Wisconsin Register of Production in the first year of its existence. Of these eight cows, each of which had to show a year's average of at least one pound of butterfat per day in order to gain admittance to the Register, six are Holsteins. These splendid animals averaged 332.5 pounds for the year's test, making their requirement by a comfortable margin. The other two members of the Marathon octette were Guernsey and Native, respectively. Their butterfat average was still more remarkable, being 429.9 pounds for the year.

Marathon county has three leading soil types. The Colby or Spencer silt loams in the north and west, Marathon silt loams in the central parts and the Kennan silt and sandy soils in the east. An abundance of rain fall, seasonably well distributed insures a maximum production of farm crops with an abundance of pasture from May to November. The average annual rain fall of the county was 33.15 inches. Length of growing season, 120 to 130 days.



12 Foot Marathon County Corn. There Is Abundant Silage Every Year.



One of Marathon's High-producing Red Polls

CLOVERLAND MAGAZINE

Minnesota's Successful Junior Live Stock Show

By JOHN H. CULNAN

THE Minnesota Junior Livestock Show, held at South St. Paul, November 17, 18 and 19, was pronounced by experts to be the best ever held by any state. W. J. Kennedy of Sioux City, Ia., who judged the baby beef stock, says the first six leaders in that division topped any winner ever entered in a similar show in his state. T. A. Erickson, Minnesota leader of boys' and girls' club work, and W. A. McKerrrow, livestock specialist with the Minnesota University's agricultural extension division, were delighted with the results of the show, indicating as they did the splendid development of junior club work in the direction of livestock. An expansion of these clubs to include even more members next year is planned by the state workers.

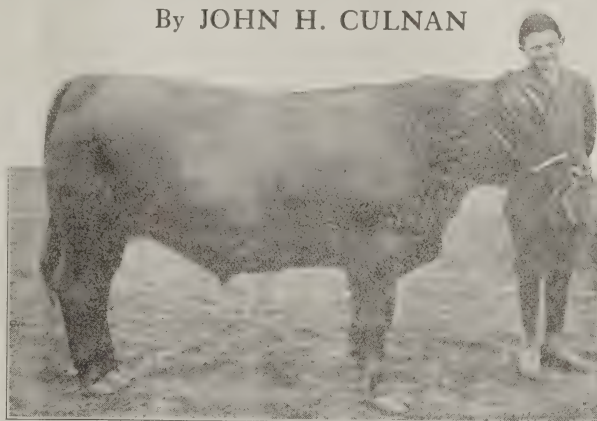
One hundred and twenty beef calves of various breeds were entered in the contest for that class. In addition, 40 or more calves entered in county contests alone were brought to South St. Paul to be sold. There were 30 dairy calves in the show, 42 hogs and more than 40 sheep.

Gold Dust, a black Aberdeen Angus calf owned and raised by Carl Oelke, 11 years old, of Blue Earth, Minn., was adjudged the grand champion baby beef in the state. This calf was sold at auction for 80 cents a pound, the record high price for baby beef at any junior livestock show in any state. The calf was 18 months old, and weighed 1,095 pounds and was bought by the Witte Market House of Minneapolis. Buyers representing packers and large market firms in the twin cities and South St. Paul attended the auction. Representatives of Swift & Co. bid the price to 75 cents.

For feeding his calf and exhibiting it young Oelke now has the equivalent of \$1,000. In addition to the \$875 which his calf brought him in the auction, the boy received several purses and silver trophies because his calf was the best junior yearling and the best Aberdeen Angus shown.

Second prize in the baby beef contest was won by Virginia Scanlon of Belview, Redwood county, with her Hereford yearling, incomparable. This calf was auctioned to Swift & Co. for 46 cents a pound. Mildred Oelke, a sister of Carl, the grand champion baby beef raiser, took third place with her calf Black Diamond, half brother of Gold Dust, the winner. The Minnesota Athletic Club bought the Shorthorn champion, owned by Albert Conzemius of Hastings, for 51 cents a pound. The average price paid for all the calves was over 20 cents a pound.

The grand champion hog, a Duroc, fed and exhibited by Selmer Stensland of Maple, Minnesota, was bought by Armour & Co. for 35 cents a pound. The grand champion sheep,



Eleven-year-old Carl Oelke, Blue Earth, Minn., and His Grand Champion Baby Beef Aberdeen Angus, "Gold Dust".

a Shropshire, fed and exhibited by Gerald Sullivan of De Sueur Center, sold for 85 cents a pound to Swift & Co.

The dairy calf contest, staged this year for the first time, was won by Verne Stiehl, of Albert Lea, with a Guernsey calf. Prof. H. H. Kildee, head of the dairy husbandry division of the Iowa state college of agriculture was the judge of dairy stock.

A contest held at University Farm for selection of three juniors to represent Minnesota at the nation wide contest at the International Livestock Show at Chicago was won by Carl G. Ash of Kittson county, Reuben Affeldt of Fillmore county and Jay Schuler of Martin county. Thirty-eight boys and girls coming from about 20 counties competed in this contest.

The Minnesota Junior Livestock Show is an annual event promoted by the agricultural extension division of the University, the Minnesota Livestock Breeders association, and various other agencies cooperating. W. A. McKerrrow, secretary of the livestock breeders, has been one of the boosters of the livestock show since its beginning. Between \$9,000 and \$10,000 were raised and spent this year in putting on the show.

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Minnesota, Land of Certainty

By FRANK E. WELD

MINNESOTA is a pleasant land and a rich land. From the boundary of Canada to its southern extremity, it stretches as an empire of opportunity and wealth. Hills and dales, trickling brooks, wooded parks and sparkling lakes, ever-changing pleasures in the vista, greet the eye. Here is not a land of monotone; a land to which one must adapt oneself. It is a land for every man. The prairie and limitless horizon for him who desires it; the sheltering nook beside the mirrored lake with the world beyond cathedral aisles through the stately pines of the Forest Primeval; the rush and bustle of great centers of trade and industry. All of these are found within the limits of the North Star State.

Choose what one will, here he will find in Minnesota his ideal.

Minneapolis, the beautiful city of lakes and gardens, offers a logical and convenient starting point from which to reach any of the varied forms of life that may be found in this great empire. This city's hospitality stands always as a cordial invitation to tourists who came here from the ends of the earth. During the past summer between 30,000 and 40,000 automobiles from every state in the Union passed through this city's gates to their favorite recreational pastime, whether

it was canoeing, bathing, hunting or fishing. More than triple this number came by rail to seek relief from the manifold cares of present day industrial life and the heat of summer among the beautiful lakes of Minnesota. Across the entire northern part of the state is spread a network of aquatic gems, whose charming beauty has brought fame and distinction to Minnesota. Wherever there are lakes there are woods, unmarked by the scars of the axeman's invasion, and there are miles of national and state reservations that shall be forever beyond his reach. There among the conifer and deciduous forests, roam the majestic moose, the graceful deer, the bear and other big game.

It is only within the last few years that people outside of the State of Minnesota have come to learn of the recreational opportunities that await them here. But a few of the hardier fishermen and hunters are cognizant of the alluring appeal of this territory. Little had been known of the possibilities that the northern part of the state offered until the automobile came into such extended use.

Within Minnesota's boundary are 53,943,379 acres, of which 3,608,000 acres are water. The time of wild land in central and southern Minnesota, as such, has passed, for

practically every acre is under fence and utilized in the production of grain and live stock. The improvements of the farms in this region are in general equal to those in other sections of the corn belt. So many of the farms are of such size that management by a single individual does not permit the fullest possible return that can be secured. Consequently, they are being gradually broken up into smaller farms, making new homes for more families. Pioneers who have grown up with the country are retiring from active farming, content with the compensation their labor has yielded them. There is opportunity now for farmers in other sections of the country to secure homes and farmsteads in southern Minnesota, with all the many advantages equal or superior to those of the locality in which they may now reside, at a price considerably lower than that asked for similar soil improvements and advantages in older sections of the country. The increase of land values in Minnesota in the past ten years makes it extremely difficult to forecast the length of time that will elapse before this territory will be as highly priced as in sections of equal fertility, in Iowa, Illinois, Indiana, and other sections of the 'corn belt. Certainly it will not be many years before these opportunities will be gone.

Minnesota is a land of certainties. The Northeastern portion of the state, alone comprising an area nearly as large as the State of Indiana, offers unlimited possibilities. The settlement of this territory has been retarded by causes not even remotely connected with the character of its soil and climate. Practically this entire area was withheld for years from settlement by extensive lumbering operations. Its magnificent timber was early appraised at a tremendous price, for the possession of which there was keen rivalry among the lumbering interests. Millions of acres were acquired by them and were held until the timber could be removed. During the thirty-five years that the devastation of the forests have been progressing rapidly, there was no demand for this land for agricultural purposes because its value, as such, was at that time unrecognized. It was thought to be of value only for its timber. Gradually, settlers are coming into this territory, constantly adding weight to the growing faith in the fertility of the country by demonstrating its wonderful opportunities.

When it is considered that for more than a score of years, Minnesota has ranked as one of the most productive states of the Union, attaining that achievement with scarcely half of its acreage under cultivation, some idea may be had of the tremendous development the state has yet to experience. The present population of the State of

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Gerald Sullivan, De Sueur Center, and His Grand Champion Shropshire.



Albert Conzemius, Hastings, Minn., and His Prize Shorthorn Bull.

CLOVERLAND MAGAZINE

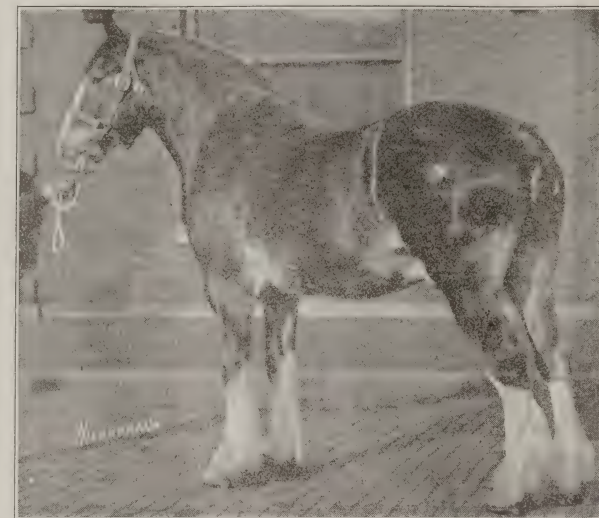
Man's Best Four-footed Friend—the Horse

By G. E. WENTWORTH

THE blood of the thoroughbred traces through every breed of good horses. Where thoroughbred blood has not been found, it has been introduced, sometimes accidentally, sometimes experimentally, sometimes intentionally, sometimes scientifically. The origin of the thoroughbred is uncertain. Some historians attribute them to the Arabs, others to the Turks, others to the Moors, others to native stock assisted by Eastern blood lines. However, it is certain that an infusion of Eastern blood has helped the cold bloods. Eastern blood is found in fast horses, in horses of courage, in horses of endurance, in horses of fire and general get-up. The thoroughbred has attained a high position in Ireland. There, those crossings have been made which have produced the world-famed Irish hunter. Ireland is the spot to find the real thoroughbred hunter type. The thoroughbred is the foundation stock of the American runner, the American standard bred and the American saddle horse. No other breed of horses has such nervous temperament, such speed and such gameness. The thoroughbred of today can out-do the source from which it sprung. Can we afford to let such a horse become extinct—a sacrifice to prejudice against racing?

The history of the Suffolk Punch is as complete as that of any recorded breed of draft horses. The sorrel color, the deep, thick body, the grand constitution, the will to work have been characteristics of the Suffolk breed for 200 years. Off colors are never bred. The Suffolk has a slight tinge of thoroughbred blood and of the Flanders' horse. It is a horse of excellent conformation and is especially noted for clean limbs. The Suffolk has been bred by the Suffolk farmers for Suffolk agricultural purposes. The most potent factor in producing a breed of horses such as this which throws true, is careful selection. Rejection of unsound sires and ill shaped dams guarantees eugenic colts and eugenic fillies. The counties in England in which the Suffolks flourish cover but a small area. Their physical characteristics, their climate, the quality and the chemical composition of their soils, can be easily ascertained. With care, with feed, with organization and ambition in similar climate, on similar soil, America can evolve a horse which shall rival the Suffolk Punch for beauty and for usefulness, and which, a few horse generations hence, might be recognized as the American type of farm horse.

When Julius Caesar landed in Britain in 54 B. C., he found the inhabitants possessed of a breed of horses unusually large. All early accounts of these British horses show that their masters were so frequently engaged in warfare that they had bred these horses for their own protection. Caesar describes the alarming manner in



A Pure Breed Clydesdale

in which chariots were driven about the fields of battle, filled with warriors. From the war chariots of the ancients, the artillery branch of the service sprung up. Cavalry and its uses are the same today as when the Assyrian came down like a wolf on the fold. A British coin of the first century is embellished with the figure of a horse—a very—a very muscular horse. The horse of Britain was used in agriculture as well as in war. Muscularity is associated with war and hard work.

The British kings and the Roman governors bred British horses. The Saxon kings passed measures to improve horses. The Saxons at one time placed an embargo against exporting the good horse of Britain. The Norman kings brought horses out of Flanders for the express purpose of crossing them on the good British horse. They, too, passed laws aimed to improve and increase the British horse in size and character.

Infusions of the blood of the lighter breeds were made, particularly of the thoroughbred—always a popular cross.

Farmers instinctively know that cold-blooded horses pick up courage and fire by a liberal sprinkling of thoroughbred blood. Out of these British horses, protected by Saxon, Norman and English kings, sprang the Shire type. In the Shire breed,

blacks, bays and browns predominate. The horses have large legs with flat bone, plenty of hair, good action, fine set limbs, a deep heart, roomy middle, placed upon short legs, with springy pasterns and strong, open feet. This breed of horse appeals to users of big horses because of its drafty conformation, its good temperament, its bone and substance throughout and its excellent long, straight stride. Could this horse or a slight variation from the same as to size and substance, if deemed desirable, be made the foundation stock of the American draft horse of the future?

The early Scotchman rode upon a small dun horse with a stripe down neck, back and tail. A horse differing in the number of vertebrae in its lumbar region from the horses of this day. This native breed was hardy, strong and active up hill and down dale. Horse breeding conditions in Scotland were as chaotic as the country itself until the early part of the eighteenth century. Since that time, with Scotch patience and Scotch persistence, by good breeding and clever selection, the Scotchman has made the Clydesdale. The rolling, hilly country with its stiff clay soil, demands a work horse which is both heavy and active. The Scotchman gave great attention to action and quality and the result is a breed of draft horses of great excel-

lence. The Clyde is an active horse with very sloping pasterns made necessary by hard roads and streets, the hills and mountains which they have worked on during their evolution from native horses crossed by Flemish and British importations. The canny Scot kept a keen eye on the growth of this, his horse. The Clyde horses have lots of feathers, are tasty lookers, have strong eyes, a virile head, great braininess. They live long and in whatever country they have been used, have shown uniform breeding qualities. Some breeders think the Clyde and Shire were splits of the same breed. Other noted authorities think these two breeds can be crossed to advantage to suit different agricultural conditions in new localities. Where the conditions of America are at all similar to those that prevail in Scotland is not Scotland's horse the logical horse to breed?

South and west of Paris, France, rises the district called "La Perche." The country is broken and hilly, in places, rolling. It has a plentiful water supply, bubbling springs and limpid brooks. The soil is clayey over a calcareous sub-soil; grains flourish; green crops are of the best. The climate is temperate but they have their cold winters and warm summers. Like Kentucky and Tennessee, La Perche has a reputation for grass. The first draft horse stock was undoubtedly of Flemish breed, improved or at least much affected in the seventh and eighth centuries by the Moorish invasion, by the Arab, Turk and Barb horses upon which the invaders rode. These Eastern horses were symmetrical, clean-limbed, with plenty of spirit, ambition, courage and endurance. Intelligently used, these qualities could not help but improve the cold blooded horses theretofore used in Gallic agriculture. The fact that in later centuries numerous importations of Eastern horses were made by the French would indicate that this first infusion of Arab blood benefited the native horse and that the horse breeders well knew its value, centuries afterward.

In the days of the stage coach, the Percheron horse had great speed and endurance, was of medium size, a horse of quality, spirit and good temper. And in such great demand that the Perche was known as the land of the good horse.

When the railroads came, Percheron dealers were in black despair. They thought the market for horses was gone forever. The farmer of the Perche, however, showed wisdom by an immediate adjustment to the new conditions. He bred his horses larger and more muscular, fitting them for draft trade and for heavy transportation. The Percheron was "nick'd" with horses of more drafty conformation brought from Flanders. Feed was increased. Horses, like men, improve in stature and intelligence with good

(Continued on page 31)



A Fast Trotter



A Suffolk Gelding



A Splendid Percheron

CLOVERLAND MAGAZINE

Deep Waterway a Direct Benefit to Cloverland



WHEN the Honorable Obadiah Gardner, United States member of the International Deep Waterway Commission, declared that the waterway hearing held in Marquette, Michigan, May 10, was "the best and most enthusiastic, from the standpoint of preparation of evidence, that the commission had yet listened to," he but reflected the intense interest which all Cloverland, as the upper peninsula of Michigan is known, is displaying in the plan to open the heart of the continent to the Atlantic seaboard, by deepening the shallows of the St. Lawrence and widening the Vellend canal.

Cloverland was "presented" at this meeting as much in detail as the five acres allotted would permit, from the earliest Indian history of the region to the present advanced industrial development. In fact, it has been said of that meeting that if any item or phase of the region's development was left out it was because the individual assigned to that task either missed his rain or lost his nerve.

The testimony presented was far from a "hit or miss" arrangement, there was a decided minimum of ex-emporaneous talk and an almost unerring lack of diffidence on the part of those who came prepared to do their share toward presenting Cloverland's case. Suffice it to say that some fifty more delegates found occasion to "hold the floor" at some time or other during the five hours of hearing, and were twenty-five or so more who could willingly have grasped the same opportunity had time permitted.

Cloverland was "presented"—every acre of the region's activity traced on its earliest origin to the present day, and it was generally conceded that one of the chief topics of discussion that day—a topic which received thorough and comprehensive attention on the part of those presenting it, was agriculture. Cloverland's agricultural situation and the possible effect upon it of the completion of a deep waterway on the Great Lakes to the sea, was presented, jointly, by J. Wade Weston, assistant state leader of county agents; Leo M. Geismar, Houghton County agricultural agent, and L. R. Walker, Marquette county agent. Their reports were gone into the records as official testimony, and their evidence, given at day, will stand as Cloverland's plea for an outlet for its vast agricultural possibilities.

And, referring to the reports given by these experts, it is concluded that Cloverland, the upper peninsula of Michigan, would not only benefit vastly from the standpoint of agriculture, but that the outside market, much of which is now scarcely touched by Cloverland-grown products, would be directly and easily accessible to this region which is rapidly surging to the front in agricultural development. The testimony established one fact,

By JOHN A. DOELLE

above all—that the deep waterway project is, possibly, the only medium through which the farmers can hope to secure a fair price for his product. And this for the reason that the farmer has always gauged his price on market lists, plus transportation and handling charges. The result would be a forceful inducement for maximum production and an increase in the forces of those engaged in farming.

Mr. Weston pointed out that the upper peninsula of Michigan consists of 10,682,240 acres, a little less than one-third of the State of Michigan. Sixty-five per cent of this area, he said, is suitable for general agriculture, and in this section are to be found the best agricultural lands in the state. And the climate is particularly well suited for the growing of crops, with a season's rain-fall averaging thirty-four inches, occurring, for the most part, during the growing season. Mr. Weston then presented statistics of approximate production, with comparative handling charges by rail and water, proving that, in one season, thousands of dollars could be saved on upper Michigan's more stable crops, such as potatoes, hay, barley, oats, rye, wheat, through the medium of the deep waterway route to the eastern ports.

Leo M. Geismar, agricultural agent for Houghton County, based his estimate on the crop of these products for 1919, giving corn 11,400 acres; oats, 55,250; wheat, 12,800; barley, 11,680; buckwheat, 1,100; rye, 5,000; potatoes, 35,000, and hay 139,200, with a total of 271,430 acres devoted to all. This represents an increase since the last census of 61,840 acres, a considerable boost.

Mr. Geismar places the total value of all crops at \$12,365,227, and states, further, that there is now being shipped out of the upper peninsula of Michigan a surplus of the eight principal crops whose production is above given—over 2,000,000 bushels of potatoes, 75,000 tons of hay and 300,000 bushels of oats. In cars of average capacity in which these commodities are shipped, this represents at the present time a yearly export shipment of nearly 10,000 carloads.

The rate, for potatoes, to New York by rail is 62½ cents per cwt. The rate by boat is one-fifth of that amount, or about twelve cents per cwt. Since potatoes constitute the bulk of agricultural export, the saving here, via the through water route, is enormous. In other words, Cloverland is practically shut out of the eastern market through lack of adequate and reasonable transportation facilities. The deep waterway project is the solution.

L. R. Walker, Marquette county agricultural agent, goes still further in his comparison of transportation rates, by enumerating comparative rates for each of Cloverland's chief agricultural products. Mr. Walker points out that in the export of potatoes alone, an immense saving would be created through the water route to New York. Speaking of Marquette County alone, he declares that the county ships out an average of 100,000 bushels of potatoes each year. The rate to New York, by rail, is 62½ cents per cwt, as before stated, and about one-fifth of that amount, or 12 cents, by water.

The difference in the market price of potatoes between Chicago and New York is fourteen cents. At present

the rail rate to Chicago, from Marquette, is twenty-four cents per cwt. With water transportation, therefore, potatoes can be shipped as cheaply from Marquette to New York by water as from this point to Chicago, by rail, under the present rate schedule. Furthermore, 100,000 bushels of potatoes—6,000,000 pounds—at fourteen cents per cwt is \$8,400 saved, or made. Marquette County is estimated to produce one-tenth of the potato crop of upper Michigan. The total saving in transportation by water, therefore, for potatoes alone, would be approximately \$1,500,000 per year—a sum to be considered.

The difference between the market price of butter in New York and Milwaukee, last year, was twenty-seven cents per pound. The railroad rate from Marquette to New York today, on butter, is 62½ cents per cwt. The boat rate ought not to be over 10 or 12 cents, and since, as Mr. Walker declares, upper Michigan is destined to become a leading live stock and dairy section, by reason of its vast acreage of grass-covered, cut-over grazing range, this commodity, too, should realize a vast saving or gain to the producer.

Upper Michigan, furthermore, is coming to be recognized as a sheep-raising center. Over 45,000 head of sheep were grazed on the Cloverland range during 1919. The rate on wool to Boston, by rail, is 81½ cents per cwt.; by boat, not over 20 cents, according to a recent estimate, resulting in a saving of over 60 cents per 100 pounds if the wool product is shipped to Boston, or another eastern port.

This much, then, for agriculture. It seems established, beyond a doubt, that not only would the product of Cloverland be directly and profitably accessible to the eastern market, now practically shut out, but that a through water route would immediately hasten land settlement, increase production and hasten land settlement, generally, throughout the entire region. And upper Michigan, with its thousands of acres of idle, agricultural land, needs this improvement sorely.

There are many other industries which would be directly affected—mining, lumbering, and manufacturing. This region, with its rich deposits of minerals (iron, copper and slate), its vast acreage of virgin hardwood timber and its rapid development in manufacture, looks to the completion of the through water route from the Great Lakes to the sea as the only effective magnet to bring out its maximum production. Transportation governs production, and as surely as the expansion of the world's markets will create an increase in home-production, just as surely will the now latent advantages of the upper peninsula of Michigan be brought to light when that region is thrown open to the eastern seaboard, and the ports across the sea.

Vital Need of West and Middle West—By C. P. Craig

This outlet is the vital need of the Middle West and the Far West. Under conditions of extraordinary stress or under the recurring stress of each crop season, the need of this outlet stands out. But the need is there at all times. Just as when the mud is hub deep on country roads, the farmer is unable to market his crops, but when the road has dried out the movement is possible, still he can cut down the cost of getting to market one-half by paying the turn-pike. So the railroads in times of worst congestion are like roads hub deep in mud. They are impassable. Just so the railroads in their best condition leave the producer farther from the market than he would be if he had the easy waterway.

This is the permanent disability of the West until the Great Lakes are opened to the sea.

Do you realize that nowhere else in the world is extensive production at-

tempted a thousand miles from the water base, except in our own Northwest?

The Russian wheat fields extend hardly eight hundred miles from the Black Sea ports. The North American wheat fields extend fifteen hundred miles from the lakes ports. And when the wheat reaches the lakes it still must climb another land barrier before it can come to the sea. By virtue of American ingenuity and energy our railroads have made some shift to take care of the situation. They have not done it successfully, they cannot do it successfully. The economic facts forbid. It does not need argument, it is manifest on the face of the facts. It does not need proof, it stands clearly in the record of the world's progress. For its economic freedom, of its full economic development the West wants the way to the sea. It will find it by the St. Lawrence and the Great Lakes.

The Dominant Agricultural Publication of the Northwest.

(Combined with The Northwestern Farmer, the Sugar Beet News, and the Northwesterner).
Established 1903.

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THE ANDREWS PUBLICATIONS,
313, 315, 317, 319 Quimby Avenue,
Menominee, Michigan

Entered as second-class matter January 27, 1916, at the post office at Menominee, Michigan, under the Act of March 3, 1879.

Subscription price, postage paid, \$1.00 a year in advance.

Advertising rates on application.

DECEMBER, 1920

1920 Holidays

THE holiday season is the best of all the year in our beloved Cloverland.

Here we have the white mantle of snow, the healthful sports of ice and hills, with a climate not too cold but just peppy enough to bring the flush of health to cheek of youth and elder, and to give to all the vigor of the north country, from whence have come, throughout the world's history, the men and women whose hardy pioneering has taken the lead in progress and worth while development.

In this year of 1920 we approach the season of Christmas, and the advent of the New Year, with grateful hearts for the blessings of the season, for peace, for our beloved country and its certainty to come safely and triumphantly through this period of reconstruction and readjustment.

Rich we are, and happy and confident.

As we together adjust ourselves to the conditions of the hour, as we strive for more production, more wisdom in expense and more rapid abandoning of extravagance, the while doing our level best to maintain business as usual, so may we determine to make 1921 a year of record achievement in Cloverland, a year of welcome to the new-comer, encouragement for and co-operation with the neighbor already here and a grasp of the knowledge that residence in Cloverland brings both opportunity and obligation.

To its thousands of loyal readers, to its great family of co-workers and enthusiastic friends, Cloverland Magazine extends its grateful wishes for a Merry Christmas and a Happy and Prosperous New Year.

Capital Is Needed

IT IS a well known fact that new countries, and more especially agricultural countries, are always more or less inadequately supplied with capital. This is true for several reasons. The great bulk of labor such as would produce goods for sale in an old country goes into permanent improvement values. In a cut-over region large amounts of labor and capital are used in clearing and other improvements of the land which appear simply as increased land values. Large amounts of labor and capital are necessarily put into farm buildings, which is another form of long-time investment where the returns are not immediate. Instead of a surplus of animals for sale there is still need for enlarging the herds, and new settlers are constantly starting new herds so that cattle have to be continually imported. On the other hand, those animals unsuited for breeding stock are frequently sold for less

than such animals would sell for in the older communities where there is a real surplus. The settler may expect this, since the small number for sale prevents the establishment of satisfactory market machinery. This is not only true for live stock but for all other products the settler usually has for sale. In other words, the settler may ordinarily expect to have to pay high prices for what he buys, and take comparatively low prices for what he sells. Getting together sufficient farm machinery and buildings, as well as enough cleared land, has to be done before the land will produce much. Hence, a large part of the capital for the development of a new country must come from the older communities. Otherwise the rate of development is exceedingly slow, and the proportion of failures large.

Such a condition is further aggravated by the fact that most of the settlers in a new country, especially in the cut-over sections, have but little property and financial backing in the older section from which they came, and what little credit they may have had in their old homes is usually terminated when they move to a new section. In a pioneer country, then, each settler represents a demand for capital, and but few bring with them the means or connections to satisfy that demand.

In order properly to finance a new country, the one great function of the state with regard to the situation is to make possible at least that organization of adequate machinery for establishing and maintaining the closest possible financial connections between the new region and the old, well-settled regions adjoining.

Michigan Crop Growers to Organize

PRELIMINARY steps have been taken in the formation of a national body of canning crop vegetable growers, and Michigan growers are planning to take their place in the country-wide organization. The purpose of the association, which is being fostered by the American Federation of Farm Bureaus, is to bring about more satisfactory marketing conditions for growers of canning crops.

Great variations in the prices paid for crops in different parts of the country, and generally unsatisfactory marketing conditions from the growers' point of view, are among the problems to be met by the proposed organization. "Canning factory men in Michigan have argued that they could not pay more for peas than they were paying the canning people who were paying a lower price in Wisconsin," said C. W. Waid, extension specialist at M. A. C., in discussing the situation. "Canning factory men in the eastern states have put up the argument that they could not pay the price asked by growers because tomatoes could be purchased much cheaper in Indiana and Illinois.

"These inequalities are among the problems which must be faced by the new association. If canning crops can be grown more cheaply in one section than in another, then there is justice in a corresponding variation in price. If, on the other hand, the cost of production is quite similar in different sections, a more uniform rate should be paid for canning crops."

A committee consisting of one man from each state interested has been appointed by President Howard of the American Federation of Farm Bureaus to look into the organization possibilities for the growers. C. W. Waid, organization secretary of the Vegetable Growers' Association of America, and extension specialist at the state agricultural college, has been named the Michigan representative on this committee, and is co-operating with the state and county farm bureaus.

It has been estimated that \$23 is the average amount carried on the persons of workers. If half our population carried this much about in their pockets, national finance would be deprived of a billion and a half dollars that might be drawing interest.

By H. M. JONES

RUSK COUNTY is Wisconsin's youngest. It is at present nineteen years old but it is still growing, regardless of its age. Its greatest growth has been in the past ten years. In this time it has increased its number of farms 877. No other county in the United States having less than 2,000 farms in 1920 can duplicate it.

We are proud of our great increase in farmers, but we are still more proud of the great progress that has been made by these farmers. Approximately 7,000 acres of land were rid of stumps in Rusk county the past year. Some development, we believe, here where it was done. We realize that at present prices it is the equivalent of a new factory locating here which would employ 400 men for 310 days out of the year. Best of all, this 7,000 acres factory can never burn down or be moved away.

From the standpoint of increased valuation, the 7,000 new acres are

the equivalent of an average Rusk county township. We have virtually added a new township to the county.

Surely, Rusk County's Million Dollar Land Clearing Contest has been a success. It was supported by individual contributions and these contributors have now entered their contributions under the heading of investments and have credited them selves with 100% dividends for the year of 1920.

The success of Cloverland's greatest development project can be ascribed to:

1. The farsightedness and unselfishness of the business men.
2. The hearty co-operation of the farmers.
3. The able direction of J. E. Lee Stewart.

The best prize of all for each entrant in the clearing contest is the land rid of brush, logs and stumps, and plowed, ready for a crop in 1921.

Land Clearing Methods

NORTHERN cut-over districts have been experiencing ideal conditions for fall clearing—a wet condition of the soil and the absence of freezing weather. Good progress has been made in many localities, especially in burned over districts of standing balsam and popple where root decay has begun.

"We are finding two methods successful," says M. J. Thompson, superintendent of the northeast experiment station at Duluth. "Using a long decking chain and hitching well up on a tree, the entire tree, stump included, may be pulled over provided a few lateral roots are cut. The stump can then be sawed off with less labor and with greater saving of fuel.

"Another plan is to cut the trees off breast high, trim and top them and pile the poles. Then follow with a team, pull and pile the stumps and later saw for firewood. The former is perhaps a quicker plan and the latter a neater one."

Value of Roughage

THE beef producer's problem is so to feed roughage that it will bring him the greatest return. Corn fodder when fed with some kind of legume, hay or nitrogenous concentrate to balance, makes a cheap and satisfactory ration. Steers fed the mixed roughage have made as large gain as those fed alfalfa hay alone as a roughage. Oat straw, buckwheat straw and wild hay, when supplemented with corn silage and some nitrogenous concentrate, make satisfactory roughage for young growing stock. Cattle do not make the same gain that they would on clover or alfalfa hay, but they can be carried through the winter very nicely and make good gains on pasture the following summer.

Poison from Salt

IT SHOULD be borne in mind that hogs and chickens are very susceptible to poisoning by common salt.

A lady emptied ice containing salt from the ice cream refrigerator in the back yard. The chickens picked up salt enough to kill them.

Pigs were allowed to graze in a pasture with cattle where they had access to a salt lick; they licked the salt ravenously and all but three of the herd died.

Another case is reported where salt brine was mistaken for sugar-water and fed to hogs with barbage, the pigs were poisoned and died the following day.

Salt poisoned hogs show no symptoms for several hours, when they are taken with dizziness, increased thirst, frothing at the mouth, diarrhea, and vomiting. Keep salt away from hogs and chickens.

Care of Garden Tools

WHEELBARROWS, hoes, rakes, shovels, picks, cultivators, trowels, weedeaters, spading forks, etc., are carelessly thrown aside after their summer's service. Next spring they are found the worse for rust; sometimes entirely ruined.

Paint applied to the metal as well as the wooden parts before putting them in winter storage would protect them from rust. In the spring after a few days of use, the paint will have worn off the working parts leaving the metal bright and clean. Tools will last much longer if given this treatment.

Farm Business Schools

A SERIES of farm accounting schools, taking up the principles of business management in agricultural work, will be held in various counties over the state during the winter, according to announcement made from the office of farm management at the Michigan Agricultural College.

Proper methods of keeping farm records and account books, including inventories of the farm business plant will be taught at these schools, fifty of which have been planned in about twenty-five different Michigan counties between the first of December and April.

Putting the farm on a business basis is the fundamental aim of the accounting work. Hit-or-miss, uncertain farming has been all too prevalent in the past, and it is the belief to expect that properly kept account books, such as those distributed by M. A. C., will bring system into the agricultural business. Ability to pick out the paying ends of farming and to locate the weak spots which bring losses, follow a good set of farm accounts. The make it possible to determine the relative proportion of each farm enterprise on a profitably managed farm.

"About 2,500 Farm Account Book have been sent out by the college this year," says H. M. Elliot, farm management demonstrator at M. A. C. "Over a thousand of these have been distributed through the State Grange, while many have gone out through the Farm Bureau."

"The purpose of our accounting schools will be to start farmers on properly in keeping the account book. Twenty-five men will be lined up for each school, the county agricultural agent making arrangements for the local school."

At the Salt Lake ram sale, held early in the fall, a catalogue distributed to the public contained a history of each flock in the exhibit, as well as the pedigree of the stud rams. Not merely sheep, but blooded sheep, the cry today.

CLOVERLAND MAGAZINE

Rusk County's Million Dollar Clearing Contest

By J. E. LEE STEWART

Rusk County's 1920 explosives order—twenty carloads.
Rusk County's 1920 clearing record—7,160 acres, equaling eighty-nine 80-acre farms.
7,160 acres—an increase of twenty per cent in Rusk County's cultivated acreage.
7,160 acres—virtually adding a new township to Rusk County.
7,160 acres—a \$400,000 increase of valuation.

SATURDAY, Nov. 6th, was celebrated as Progress Day in Rusk County, Wisconsin, and it was a day well named. Last spring when the business men of Rusk County launched their \$1,000,000 Land Clearing Contest to clear "6,000 more acres in 1920" few realized that this goal would be attained. However, the celebration on Nov. 6th revealed the fact that the coveted mark had been passed and 7,160 acres had been subdued to the plow this year, there by adding the value of one new township to Rusk County. Over 1,500 residents of Rusk County gathered at Ladysmith to help the contest committee make the day a success and to take advantage of the Progress Day bargains at the stores.

At 11:30 the largest single blast of stumps ever attempted in this section of the state was made when A. J. McAdams of the Dupont Powder Company pressed the lever that raised fifty 'stumps from their resting place with twenty per cent dynamite. Following the big blast, the Service Star Mothers of Ladysmith served an up-to-date cafeteria luncheon at the high school gymnasium. Through the untiring efforts of these ladies over 1,000 people were served in real cafeteria style.

The afternoon program was taken up with addresses by Dean H. L. Russell, Wisconsin College of Agriculture; E. G. Quamme, President Federal Farm Loan Bank, St. Paul and C. P. Norgord, Wisconsin Commissioner of Agriculture while the women and children were entertained at the Unique theater with free movies.

At 2:30 Dean H. L. Russell gave an interesting talk on the advantages our Badger State enjoys. The dean pointed out that Wisconsin enjoyed to greater extent than any other State in the Union three distinct advantages. Her proximity to markets and marketing facilities are ideal in that she has direct connection with Minneapolis and St. Paul on the northwest and Chicago and Milwaukee on the south. If the proposed canal connecting the Great Lakes with the Atlantic Ocean materializes she will have at least five more so-called ocean ports in Ashland, Duluth, Superior, Manitowoc and Milwaukee. Ladysmith is particularly fortunate in this respect being in direct connection with all these places with Minneapolis, St. Paul and Sault Ste. Marie railroad. The second advantage which this state claims are



What Vincent Was, the Sweepstakes Prize Winner, Had to Buck Against

the ideal climatic conditions. In our northern section this is especially true having neither the extreme of heat or cold nor wet or dry. But the greatest factor to her advantage is the fact that plant and animal diseases are climatic conditions and in part to the climatic conditions and in part to the virgin soil. Dean Russell entered a strong plea to the farmers of Rusk County to keep their crops and livestock free from disease by the application of treatments recommended for their control. He also stated that the losses due to crop and animal diseases meant more to the farmers in dollars and cents than the losses by climatic and soil conditions.

Following Dean Russell, E. G. Quamme, President of the Federal Farm Loan Bank, St. Paul, gave an interesting discourse on long and short credits, personal credits and money conditions in general over the United States. Mr. Quamme gave the audience a thrill when he pointed out that the next four years would be four good years but at the same time hard years. The period of readjustment will commence with the beginning of the new administration. After the signing of the peace treaty, which Mr. Quamme intimates will take place soon after March 4, 1921, a decline in prices will prevail and living once more will return to its normal plane. In speaking of credits and scarcity of money at the present time, Mr. Quamme stated emphatically that the banks did not have the money locked up in their vaults. He pointed out that the money was tied up in farm products and other manufactured products which had not been moved because of the shortage of cars. About fifteen

per cent of last year's crops are still to be moved. With reference to the Federal Farm Loan Bank, Mr. Quamme stated that the bank was not functioning at the present time because of a decision now pending in the Supreme Court on the constitutionality of the law. However, he feels certain that a favorable decision will be rendered and that the Federal Bank will once more be able to extend its invaluable assistance to the farmers.

C. P. Norgord, Wisconsin Commissioner of Agriculture, then awarded the county sweepstakes prize of forty acres of land donated by the National Land Colonization Company, Ladysmith, to Vincent Was of Conrath. In rendering their decision the judges took in to consideration the acreage cleared, difficulty of clearing, thoroughness of the work, resources of the contestant, system and headwork displayed and the actual amount of time during the period of the contest devoted to land clearing. Although other men cleared more land than Mr. Was, the judges voted unanimously to award Mr. Was the coveted prize for having successfully subdued the above mentioned points.

In the evening a smoker and informal meeting at the Army and Navy club concluded the day's program. W. A. Blackburn acted as chairman and prevailed upon several of the men present for five minute talks which proved to be very interesting and instructive. During the course of the evening's discussions J. E. Lee Stewart, Director of the Land Clearing Contest, posted a large sign showing the amount of dynamite used in the county this season. A total aggregate of 358,000 pounds were used this season at an average of 50 pounds per

acre to clear the 7,160 new acres and thereby increase the value of Rusk county by about \$400,000. H. S. Funston of the Soo Line railroad stated that from January 1, 1914 to the present date, 7500 new families have settled in Upper Wisconsin. Of these 7500 families, twenty-two per cent or 1650 families have settled in Rusk county. During the past year, 1920, 1100 settlers have moved into Upper Wisconsin and of these 253 or about twenty per cent have settled in Rusk County. During the past season 124 immigrant cars have been unloaded at Ladysmith. According to the last census that County has increased its population from 11,000 to 16,000 souls. Mr. Quamme stated that for a period of ten years over the entire United States, the agricultural population had decreased fourteen per cent. If this movement continues to gain momentum at the same rate for the next ten years, a different type of farming will lend itself to meet the popular demands of the country. At the present time intensive farming prevails but if our agricultural population continues to dwindle a more extensive type of farming will be necessary to feed our ever increasing city population.

B. G. Packer, Commissioner of Immigration, stated there are 24,000,000 acres of plow land in Wisconsin of which 13,000,000 acres are now under the plow. Of the remaining 11,000,000 acres to be brought under the plow, fifty-two per cent will have to come from Upper Wisconsin. To accomplish this Mr. Packer pointed out the importance of teamwork which is the outstanding feature of all Upper Wisconsin activities, and in fact the

THE effect that 7,160 acres of land cleared this year in Rusk County, Wisconsin, will have on the community and the country, is told in the following figures:

Would feed 2,500 more cows, maintain 150 more cheese factories.

Would produce 1,200,000 bushels of potatoes, 16,000 bushels of clover seed, 15,000 tons of clover hay, and 80,000 bushels of soy beans.

Would furnish potatoes for all Wisconsin for one month.

Would feed cities of Milwaukee, Madison, Racine and Superior for four months.

outstanding feature in the accomplishment of any great achievement. The initial impression which strikes the outsider who visits this northern country is the team work carried on. The fact that this country is practically new leads Mr. Packer to believe that neighborly love and friendship are in a large measure due to teamwork, which is so evident.

The speaker compared Upper Wisconsin to a large smooth running machine with every man a cog and all the cogs meshing properly. As long

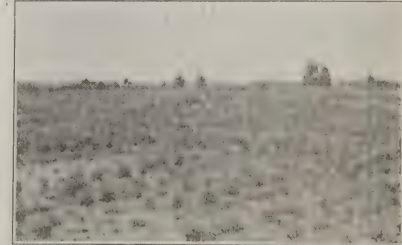
(Continued on page 29)



Peas on New Clearing of Frank Oquist



Ladysmith Business Men Make Trips of Inspection



Potatoes on New Breaking at Vincent Was' Farm



Woman and the Home

By MAE T. ERDLITZ



Christmas Time Is Candy Time

CHRISTMAS time is candy time, and with the present exorbitant prices of candy one is much more satisfied by making her own. It is not only cheaper, but we know there were no poisonous colorings or substitutes used.

Most of the kiddies prefer a hard candy, which is typical of the old "Christmas Mixed." Following are several very good recipes for such candies:

Nut Candy

2 cups granulated sugar
 1/2 cupful water
 Boil without stirring until brittle when tried in ice water. Just before done add one teaspoonful vinegar, and butter the size of a walnut. Flavor with one teaspoonful vanilla, add one teaspoonful chopped nuts. Stir thoroughly and quickly. Pour on buttered plates. Break up when cool.

Butter Scotch

3 lbs. sugar
 1/4 lb. butter
 1/2 teaspoonful Cream of Tartar

8 drops extract lemon
 Dissolve the sugar in cold water and boil without stirring until it breaks when dropped in cold water, then take from fire and add lemon juice. Pour in buttered pans 1/4 inch thick, and when nearly cold work off in squares.

Molasses Taffy

2 cups molasses
 1 cup corn syrup
 1/4 teaspoonful salt
 Cook the ingredients together until the mixture is brittle when it is tried in cold water. The candy should be stirred during the later part of the cooking. Remove from the fire when it is sufficiently cooked, stir in half teaspoonful of soda and pour the candy into a well greased pan to cool. This much soda will make the taffy somewhat fluffy and less pulling will be necessary. More than this amount should not be used, as the acid in the molasses gives the taffy a pleasing flavor.

When slicing bacon place the rind side down and then cut down to the rind, but not through it. When a sufficient number of slices have been cut slip the knife under and slice away from the rind.

Choosing the New Winter Gown

ONE of our pleasantest and yet most perplexing duties these winter days is choosing the new gown, or gowns. The smaller wardrobe the more particular we must be to get what will look well for all occasions, will wear well and which neither we nor our friends will soon tire of.

The woman of one gown should choose a garment so unobtrusive that those observing her will not observe the gown. It must be such that her friends will remark about it, if they remark at all, "That dress looks just like you." It must be of the greatest simplicity, with harmonious lines, little trimming to distinguish it, must be very appropriate to the wearer in color, design and material. This will place the wearer so much at ease that she will forget herself and be her most charming.

Dark colors answer these requirements well. Loud plaids, extreme styles, conspicuous weaves or colors, many ruffles or trimmings by which a dress may be remembered—these should be avoided. Match your gown to your complexion so that they will blend. A touch of blue for blue eyes, brown, tan or gray to match the hair, pink for "peachy" complexions and very dark red for the brunette who needs a spark of livening. Black and navy blue emphasize the white skin. Burnt orange is a very popular color just now to give a trifle of brightening.

The pendulum of style swings to garments of simplicity and sobriety for 1921. Black and dark shades are used extensively for both afternoon and evening wear and are very beautiful when given a touch of brightness or trimmed with jet or metallic embroidery.

Very conspicuous on afternoon frocks is the low waist line, together with much embroidery. Jeweled girdles are very good when placed at the low waistline. Leather trimming is very much in vogue, and is very pretty when used in contrasting color to the dress.

For the school girl, Figure 1 is very serviceable when made of either a good serge or tricotine material. It is very simple and pretty. The pockets, triangular in shape, have the fluting at the top, and two buttons placed one above the other in the center. These may be either covered buttons of the same or contrasting material smoked pearl or tailored buttons. The fluting may be of either self material, taffeta ribbon or satin, about three-quarters or an inch in width. This also outlines

the belt, neck and cuffs. If one does not care for the belt of self material outlined with the fluting, a narrow leather belt is very pretty.

If a little more elaborate dress is desired, it may be had by stamping a pretty design in the center front, and embroidering this with either jet or metallic beads. Just a touch of the beads could also be put on the pockets, in this case omitting the buttons.

Still another novel way of trimming this dress would be by braiding the belt, cuffs and pockets in some compact design. The braiding may be in silk soutache, or in gold or copper color. This is very attractive and adds color to the garment.

Figure 2 is a handsome full length coat, which can be made of any heavy coating material and of any particular shade. The pockets are trimmed with four small pin tucks set in two groups of two tucks each, as in the illustration. The deep cuffs are similarly trimmed. The coat is belted just in the front, and the large shawl collar is very prettily made of seal fur, but owing to the very exorbitant prices of fur at this time, it is also very prettily made of self material trimmed with the small groups of pin tucks as are used on the pockets and cuffs. Self covered buttons form the trimming on the pockets, cuffs, belt and also two rows down each side of the back, as in the illustration. This is a very serviceable coat for every occasion.



Figure 2

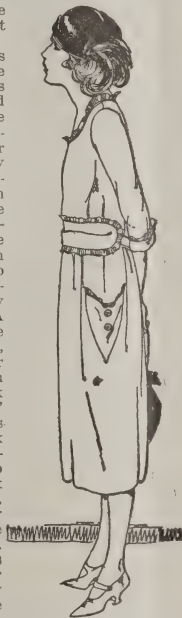


Figure 1

Kitchen Kinks

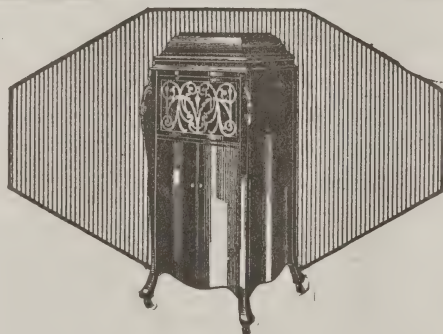
If you find your stoves that have been stored during the summer have become rusted, wet the rusty spots with kerosene and scour with bath brick applied with a damp cloth.

Hang your sheets and kitchen towels straight on the line, then fold carefully when dry and they will not need ironing. In this way they will retain the sunshine and ozone which would otherwise be ironed out of them.

A good paste for hanging wall paper is made of rye flour. Mix the flour to a smooth paste with cold water, adding a small quantity of powdered resin. Now thin with boiling water and cook until the mixture bubbles.

Zinc on tables or under stoves may be kept bright and clean by scouring with bath brick moistened with kerosene. Stains on zinc may be removed by rubbing with vinegar, but the acid should be immediately washed off and the zinc wiped dry.

When you paint your furniture white you will find, even after the enamel is dry that dust will adhere to it which cannot be removed by ordinary dry dusting. To prevent this, after the enamel is dry go over it lightly with a soft cloth dipped in water and powdered pumice stone. This gives a satiny finish and prevents all trouble.



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Cloverland Farmer Boy Is a Power in Congress

By ROGER M. ANDREWS

CONGRESSMAN Carl W. Riddick, of the Second District of Montana, is a Menominee (Michigan) High School boy of the Class of '90. He is one of the few men successful in politics who "did not go to do it." Political fate has trailed him, lifting him out of his Montana ranch home, whither he had fled to hide from her, and setting him down in the halls of Congress.

He made his start in business in the Menominee Herald office, where, as "devil" and printer, he elicited the admiration of Editor H. O. Fifield for his exceptional hustle and energy, which is still an outstanding trait with Mr. Riddick. "He ran about his work," said Mr. Fifield. "Carl Riddick gets things done," they say of him in Washington.

The son of a Methodist minister, Carl Riddick lived his boyhood in many towns, from Wells, Minn., where he was born in 1872, to Menominee, where he was graduated from school, learned his trade, and found his wife.



Hon. Carl W. Riddick

Rev. Isaac H. Riddick, father of Carl Riddick, came to Menominee when it was a "Home Missionary" appointment. He helped the church there become independent, and build a new edifice which was in its day an ambitious structure. It was at an Epworth League social that Carl Riddick "came, saw, and conquered" the popular little school girl who later became Mrs. Riddick. She was then Miss Grace Keith, in long braids and short dresses. She is now both charming and popular among "the Congressional set" at the national capital.

Mr. Riddick attended college in Appleton, Wis., and Albion, Mich., helping himself by means of his printer's trade. His trip from Menominee to Albion was made in a most interesting and characteristic manner. Mr. Riddick has always been an outdoor man, fond of athletics, and his favorite toy is the bicycle. In the day of the old-time, high wheel bicycle, Mr. Riddick, astride this hair-raising vehicle, set out on the 735-mile trip to college. On his wheel or beside it, this undaunted ad covered the whole distance in seven days, having many thrilling experiences on the way. These he reported to his Menominee friends in a letter published in The Herald of September 30, 1891. This trip, with its good roads, bad roads, hills, sand, dangers, heat, exhaustion, discouragement, indomitable pushing ahead, and, withal, joy of the journey and sure arrival are symbolical of his career.

Among his youthful triumphs was he winning of a football game between Albion College and Ann Arbor

University, in which the score was 10 to 4, due, his companions said, to a play made by Carl Riddick.

At the age of 21, Mr. Riddick married Grace Keith. He then accepted the position of night foreman of the Madison (Wisconsin) Democrat. Editor O. D. Brandenburg still smiles over his hustle and tells that, before he left, he had sold a bicycle to every man in the office.

While yet very young, he bought The Journal in White Pigeon (Michigan) and later The Republican in Winamac (Indiana). In Winamac, Mr. Riddick built a modern office building for his newspaper and a beautiful home for his family. He put so much typical vim into his editorials that he soon changed Pulaski County, Indiana, from a rock-ribbed Democratic stronghold into a Republican stronghold.

It was then that Political Fate marked him for her own. She offered him the post-office, which he refused, since his chief desire was to enjoy his newspaper and his family life. Without his knowledge he was unanimously chosen secretary of the Indiana State Republican Committee. During the next four years he was much in the public eye. An Indianapolis reporter sized him up at this time as, "pleasing and very youthful looking, of medium height, athletic, and of general straight-forward eyes." This, plus a little avoirdupois and a few gray hairs, is still Carl Riddick.

After serving the state committee with distinguished success, he was offered a responsible appointive position by President Taft, but had no desire other than to return to his home and his business. Later, editorial brethren urged him to run for the office of secretary of state, but it made no temptation. He was next urged to run for Congress from his district in Indiana, but, wishing to get clear out of politics, he hid on a ranch thirty miles from Lewistown, Montana.

For two years Mr. Riddick and family enjoyed—really enjoyed—all the thrills, hardships, sacrifices, and strenuous work of pioneers. At this time Fergus County (Montana) suffered from great tax injustices. In an early day, speculators had bought up most of the best land. This they held undeveloped until all the poorer land about it had been so improved that it could be sold at a 300 or 400 per cent profit. These absent landlords paid almost no taxes, while the small farmers on poorer lands bore the burden of taxation. At a meeting held to discuss this problem, Mr. Riddick was asked for his views. He noted that the tax assessor had much discretion in making the assessments and proposed that a farmer-ranchman be made assessor. His Political Fate, who had followed him from Indiana, pointed her finger at him, insisting, "Thou art the man!"

Again, against his will, Mr. Riddick assumed office. For four years he championed the cause of the small land owners, but with such fairness to all that he found himself a man of much reputation and popularity. The state adopted his plan of taxation after the first year.

Refusing to run for a third term as assessor, his friends and neighbors insisted that he represent them in Congress. This he has done for the past two years. The Second Congressional District in Montana is made up of the twenty-seven counties in the east part of the state and is the largest Congressional district in the United States.

In Washington Mr. Riddick has not forgotten whom he represents, but is one of the few real farmers in Congress and never loses an opportunity to work for rural interests.

JOHN'S RETURN

JOHN was an energetic farmer boy. He didn't wait to be drafted. He went when his country declared war. He was a big, green, raw-boned fellow, but he knew his duty.

Mary kissed him when he went away and then she cried, as sweethearts will.

John went "over there." It wasn't long before his "buddies" learned that the "country jay" was a real man. Four times he was decorated for bravery under fire, and when he came home he wore the uniform of a captain. This time Mary wept tears of joy.

John went back on father's farm. It was all right for a week or two, but then he missed the activities he had known in army life. The change was so sudden that he couldn't quite get used to it.

One night he bade Mary, Father and Mother farewell. He took his grip and went to the city. He found a job and began earning \$10 per day. The money came easily, but John saved a bit even though it did cost a lot to live.

When the industrial break came three months ago and John's employers closed their factory, John—like many others—was out of a job. He had a savings account so he was able to go without pay while he hunted for more work.

And then came the big idea:

"I'LL GO BACK TO THE COUNTRY, BUY 160 ACRES OF CUT-OVER LAND, PUT SOME STOCK ON IT, CLEAR IT UP, START A FARM OF MY OWN, BUILD A HOUSE AND BARN AND TAKE MARY TO OUR HOME."

John grabbed his grip, bought his ticket, rushed to Mary's home and "popped the question" before Mary got over her surprise at seeing him back in the country.

John hunted up his land, paid for part of it, gave a mortgage for the rest on easy payments and went to work. He spent his time swinging an axe and watching a little live stock thrive on the abundant grass which grows on his rich soil. Every night he called on Mary for a chat and—but, why tell lovers' secrets?

Pretty soon they'll get married, move into the house on John's new farm, pay for the place on what the farm produces, raise a family and live happily "ever after."

Thousands of John's fellow workmen will stick to the city, spend their savings waiting for times to get better. They'll get new jobs, save some money, and then it'll all happen over again. They'll get nowhere, while John will gradually develop a beautiful farm home.

WHY DON'T THEY ALL DO WHAT JOHN HAS DONE?

There's room for thousands of "out-of-a-job" city folks who have saved a bit of cash right in Menominee County alone. Write

The
Chamber of Commerce
MENOMINEE, MICHIGAN



An Introduction

You have, at times, been introduced to individuals of whom you have often heard. By reputation you feel you know them. Such perhaps has been your feeling toward the Union Trust Company which has been so long known in Michigan business circles.

It is our wish now to introduce ourselves to you directly—to make the acquaintance of you who dwell in Cloverland—to be, perhaps, of service to you.

There are several reasons why the Union Trust Company can serve you well. It is the oldest trust company in Detroit; it knows thoroughly the laws of Michigan which govern the distribution and management of property; it has had the years of experience which bring good judgment.

In the weeks to come we shall tell you more of ourselves and of our interest in Cloverland. Probably you will want our literature on Wills, Living Trusts and Life Insurance Trusts. It is yours for the asking.

Union Trust Company

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Total Resources, December 31st, 1919 Over \$20,000,000.00

Slate Quarries at Arvon Offer Fine Opportunity

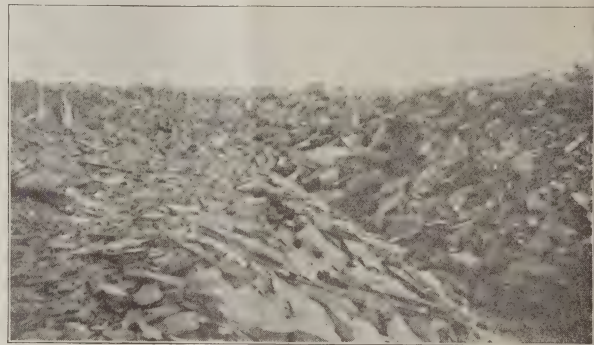
By ROGER M. ANDREWS

JUST as long as the fortunate few shall continue to reap the harvest from the wild, almost fantastic gambling instinct of the human race—that seemingly uncontrollable desire to speculate—just that long will the proven "sure thing" fail to attract. And, while hundreds of thousands of American citizens annually lend an eager ear to the roseate tale of the "wild-cat" promoter, opportunities as substantial and glowing as the Creator could possibly have made them stand idle, and—yes—begging for a chance to prove up.

It is doubtless the Yankee craving for the novel and spectacular which has resulted in the misuse, or non-use of much of the vast natural resource for which the United States of America is known and recognized the world

the constantly increasing cost of construction materials, there lies embedded in the surface of Baraga County, Northern Michigan, what has generally been acknowledged among geologists as one of the finest and largest deposits of commercial slate in the entire country. There have been attempts to market the product—and the crumbling shacks, rusted machinery and water-filled pits, at Arvon, the site of the old slate quarry, is the almost sickening evidence of the failure on the part of the original operator to make it a go.

A visit to the abandoned village of Arvon, Northern Michigan, inspires one more with a sense of pitiful awe than with a feeling of resentment or denouncement toward those whose lack of proper managerial ability resulted



One of the Finest Deposits of Commercial Slate in the Entire Country

over. So intense is the desire of the masses for something new, something different, that the slower yet more secure method of attaining success and independence is a matter of afterthought entirely.

And so it is that, with the country's economic situation frantically calling for greater utilization of the nation's vast natural resource in soils, minerals, waterways and timber, money goes on, circulating from one fly-by-night scheme to another, each promising wealth and opulence.

There are any number of striking evidence of this fact throughout the country. We see it on all hands—abandoned mines, mills and factories—left to rot and decay because the first turn of the wheel failed to net the expected fortune.

And it is a safe assumption that 80 per cent or more of these idle properties represent the lack of proper management—and that alone.

So, with contractors and builders wildly casting about for a way out of

in the failure of operations there years ago. Scenically, it is an unusually attractive spot.

Hewed from the great forest of hard wood timber which abounds throughout that region, and approached by a winding trail, hemmed in on both sides by tall hemlocks, Arvon is picturesque in the extreme. There are, or were, fourteen dwelling houses, and a two-story hotel which is said to have cost a bit over \$10,000 to build. Erected about fifty years ago, the hotel is still in an excellent state of preservation, with its Arvon slate roof intact, but the dwelling houses are in an advanced stage of decay. A caretaker, who is mayor, village council, fire department and police, is the only resident of Arvon.

Slate was first discovered in Baraga County in 1872, and the Huron Bay Slate and Iron Company was organized in the fall of that year. Work was begun, and a tramway erected to Huron Bay, where a dock was later con-



Capital Plus Management Can Make This Plant a Winner

structed to accommodate boats of fourteen-foot draft.

The lack of experience and disruption within the management itself resulted in the abandonment of the work in 1877, after having operated during that period at a constant loss. Previous to the year 1878, 5,100 squares of roofing had been shipped, a square, in this sense, being 100 square feet. During the year 1878 1,535 squares were sent out.

In 1874 another slate company, the Clinton Slate & Iron Company, took up the work near that vicinity, and in four years shipped out a total of 3,084 squares of roofing slate. This company, likewise, failed and their operations were taken over by the Michigan Slate Company, in 1881. The officers were James Turner, W. K. Prudden, S. F. Seager and S. L. Smith, of Lansing. With a capital of \$500,000 the new company began operations—and the abandoned village of Arvon is the result of their seven years of work in that vicinity. During that period 45,000 squares of roofing, valued at \$188,550, or \$3.93 per 100 square feet, were shipped.

That the deposit possesses a high commercial value is attested by a report of Michigan's mineral resources, issued several years ago by the state geological and biological departments, which says: "The roofing slate which was sent out from the quarries at Arvon is of an agreeable black color and of uniform quality. The grain is fine, silky, homogeneous and combines durability with smoothness, bearing favorable comparison with the product from the east. Cleavage or splitting planes of the slate dip very uniformly to the south, but the bedding plane is in broad anticlinal and synclinal waves which trend east and west, with a consequent dip to the south or north, as the case may be."

A. P. Swineford, commissioner of mineral statistics during the period when Arvon quarries were in operation, declared: "The time is near at hand when the slate interest of Baraga County will come to the front and take rank as one of the most important of our Michigan industries. Indeed all that is now needed to make it a permanently profitable industry is the employment of the capital, backed by intelligent management, necessary to its thorough development."

Recent investigation of the slate possibilities at Arvon have been made by the state geological and biological survey, and in a recent statement, R. A. Smith, director of the survey, declares: "In answer to numerous inquiries from asphalt shingle manufacturers, I have always suggested the use of the black slates at Arvon for making a rich, dark shingle, for I believe that such a shingle would be salable."

"The operators evidently did not understand the geology of the slate deposits and inferred that the cleavage planes were bedding planes. As a consequence their quarries were planned wrong and the results of their operations now form a serious obstacle to the economical opening of the quarries. Personally, I would like to see a combination of good business men and a practical slate operator try out the commercial possibilities of these slates."

A new company, taking hold at Arvon today, would be greeted with a distinct advantage as a starter. They would find that, while preparations for re-opening were in progress, considerable shipping could be done from the three or four substantially-built and slate-filled warehouses now standing on the property. A vast amount of roofing slate, neatly cut and piled, had been stored in the warehouses at the time of the property's abandonment—and both slate and warehouses are in excellent condition. Another drawback contains hundreds of sample drill cores, taken from the pits which have been worked. There is a possibility that if these samples could be identified with the sections from which they were obtained, much of the expense and labor attendant upon new experimental and survey work could be avoided.

At any rate, the slate quarries at Arvon are idle—and have been idle



DODGE BROTHERS BUSINESS CAR

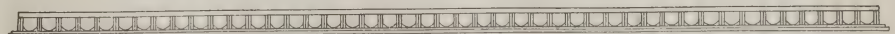
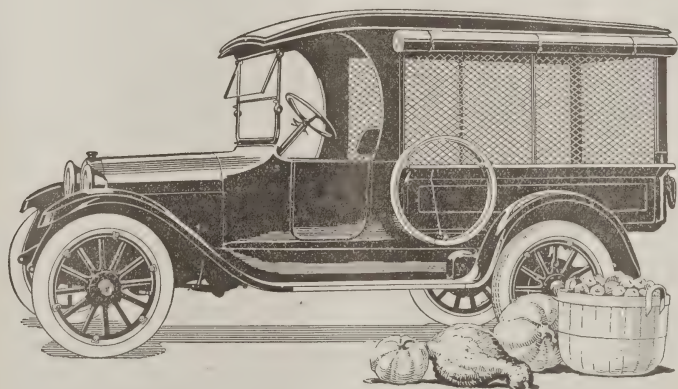
During the war the shell-torn roads of France advertised to the world for all time the wonderful strength and powers of resistance in Dodge Brothers construction.

The Business Car embodies this same splendid sturdiness and ability to stand up under continued hard use, on and about the farm, and to and from town.

It has a universal good name for infrequency of repair and unusually low cost of operation.

Every inquiry you make will convince you that it is ideal for farm use in point of size, weight, capacity, low cost of haulage and long life.

DODGE BROTHERS, DETROIT



for the past forty years or more. Great, gaping shelves of fine, black slate remain to tell the visitor the sad story of poor management. The pioneering—namely, the location of the deposit, the opening of the quarries and the cutting of roads and laying of rail beds, has been accomplished. It now remains for some really wise and level-headed business man, or group of men, to step in, with practical operators to conduct the work.

It is an established fact that there is almost an indefinite supply of the finest grade of slate at Arvon. And, in the meantime, the village of Arvon awaits patiently the day of its reclamation, the caretaker is tiring of his one-man job, and, once more, opportunity knocks in vain.

Effects of Land Clearing

The effect that the 18,000 acres of land cleared this year in Marinette county will have on the community and the country, is told in the following figures:

Would feed 6,000 more cows, maintain 300 more cheese factories.

Would produce 2,700,000 bushels of potatoes, 36,000 bushels of clover seed, 27,000 tons of clover hay, and 180,000 bushels of soy beans.

Would furnish potatoes for all Wisconsin for three months.

Would feed cities of Milwaukee, Madison, Racine and Superior for one year.

Would pay the expenses of the United States Weather Bureau for

1919, with over one-half million dollars left.

18,000 acres is equal to 70 per cent of the increase for 10 years, 1909-1919, or equal to the increase the past 7 years, or 520 per cent increase over 1919.

18,000 acres is almost sufficient area to permit doubling Marinette County 1919 crop of potatoes, corn and wheat which were valued at \$1,812,896.

18,000 acres increases the percentage in crops in the county from 8.3 per cent to 10.3 per cent with only four other northern counties having larger cleared area.

At average price and with average Marinette County production, this acreage would support 300-ten-cow herds.

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WHEN it is inconvenient for you to come to town you need not worry about transacting your banking business. The First National Bank is as near your door as the telephone or mail box. A telephone call or a letter to this bank will receive prompt and careful attention. You will find it helpful at all times to make use of this service.

Saving adds 100% to the satisfaction of spending. The saver is a wise spender—gets his money's worth.

Special attention given and facilities offered to out-of-town patrons.

First National Bank

MARQUETTE, MICHIGAN

DESIGNATED UNITED STATES DEPOSITARY

Capital, Surplus and Undivided Profits In Excess of \$300,000

Winning Fight on Bovine Tuberculosis

THE fall meeting in Madison, Wisconsin, of the Live Stock Sanitary Board of the State Department of Agriculture, brought out some facts of supreme interest not only to stock breeders and farmers generally, but to every citizen, old or young, interested in public health.

The meeting made clear that so great has become the interest of herd owners to eradicate tuberculosis from their herds, that the demand upon the State Department of Agriculture for testing far exceeded the facilities and means of the department, and the next legislature will be called upon to largely increase the facilities to enable the work to go on.

Wisconsin now leads all states of the Union in its work of stamping out bovine tuberculosis.

The Live Stock Sanitary Board of the State Department of Agriculture consists of the following members: Commissioner C. P. Norgord, State Veterinarian; Dr. O. H. Eliason, Prof. B. G. Hastings, bacteriologist, College of Agriculture; Dr. L. H. Wright, of Columbus, and George McKerrow, of Pewaukee.

The board listened to reports on important live stock disease eradication work, such as area test and accredited herd work on tuberculosis, hog cholera eradication, etc.

Dr. J. P. West, in charge of the area test work for tuberculosis, reported that the 68,000 head of cattle in Barron County will all be tuberculin tested at least by the first of January, 1921. A very healthy and promising situation is found in this northern region in that less than one per cent of the cattle have tuberculosis, and when these are removed throughout Northern Wisconsin, this region will be one of the most free and safest dairy re-

gions so far as tuberculosis free cattle are concerned.

Work is well under way in Lincoln County, which county will also be completed by early spring. All of Waukesha County, except two townships, were completed early last spring. With the completion of Barron County, this county will be the first county in the United States, outside of the District of Columbia, in which every bovine animal has been tuberculin tested.

The sentiment in favor of this method of eradication is so strong and the requests have come in from so many counties that the funds available for the work cannot begin to cover the demands upon it. Petitions representing more than the majority of the cattle owners of a county have already reached the office of the Department of Agriculture or are in process of circulation in fourteen counties of the state. So many requests are coming in that the board cannot make any further promises, and those who wish this type of work done must appeal direct to the Legislature.

Dr. J. S. Healy, in charge of the state and federal accredited herd work, reported that on Oct. 1, 1920, the state had 361 fully accredited; 971 had passed one negative test, and 1,611 herds were under supervision. The growth of this work may be measured by the fact, that in July, 1919, there were but 17 fully accredited herds in the state, while one year later there were 302, 816 having passed one negative test. In this project also the demand is far beyond what can be met with present funds, both state and federal. In fact, it has been necessary to curtail to a great extent the activities of agencies connected with the live stock industry in promoting the accredited herd project, as the department felt that it would be unable to extend the service to new applicants with the appropriation at hand. There are at present on file 317 applications signed by Wisconsin breeders for whom the department has been unable to test. The state and federal accredited herd work is a joint project supported one-half by state and one-half by federal funds.

Dr. J. T. Purcell, in charge of hog cholera eradication, reported excellent work in the control and eradication of hog cholera and thus preventing the great losses to the industry which so frequently have followed extensive outbreaks. This work consists in visiting infected areas, calling the attention of farmers therein to practical, preventative measures at a time when they appreciate the importance of learning and using them. The inspectors also are clothed with authority to enforce the observance of preventative measures upon those who are careless and inclined to jeopardize the whole community by their negligence.

The inspector also works with the farmers and veterinarians as an expert on hog cholera and other diseases frequently complicated with it and in the vaccination of hogs.

A report by Dr. Eliason indicated that the funds available for paying indemnities to the farmers for condemned animals for the year ending July 30, 1920, were depleted in April, 1920. Warnings were at that time sent out to all veterinarians and farmers by letter and newspapers, that no further payment could be made until July 1, 1920, the beginning of the new fiscal year. In spite of this, considerable testing was carried on locally and many reactors appeared, the indemnities on which cannot be paid unless the coming Legislature should make special appropriation.

The pressure of demand for protection of live stock from contagious diseases of all kinds has been so great throughout the year that the facilities of the Live Stock Sanitary Division have been entirely swamped, and it has grown exceedingly difficult to satisfy the public as a consequence.

We Want Settlers in Gogebic Co., Mich.

This county is making settlement of the land a part of its official business, and all settlers are directed to the County Agricultural Agent, whose expert services are to be hand free of charge in approving land selections, advice as to clearing, crops, cultivation, live stock growing and dairying.

The big iron mining district of Ironwood affords immediate market for all farm products at profitable prices. A mining community is a consuming community and is always willing to pay good prices for good farm produce.

There is no better opportunity anywhere in the country today to enjoy quick and satisfactory returns from the farm, especially if you have a few dairy cows and chickens.

There are thousands of acres of good farming land in Gogebic County that may be purchased at very low prices and on easy payments. There are good roads and intersecting roads which afford easy access to market, and splendid railroad facilities for shipping. There are good schools throughout the county, and churches that supply a social need not always available in more sparsely settled regions.

There are large tracts of standing timber adjacent to the cut-over land which may be purchased.

Gogebic County has all the natural resources—mining, timber, agricultural land. Could you ask for a better combination in seeking a profitable farm home?

FOR DETAIL INFORMATION WRITE TO

C. E. GUNDERSON

County Agricultural Agent,

IRONWOOD

MICHIGAN

Ask the Man Who Owns One

EDITOR, Cloverland Magazine: I have just returned from Colorado, my old stamping ground. I used to punch cows down there when it was a cow country, or rather, a range cow country. I met several of the old-timers, but many more of the new-comers to the region. The country is all fenced up now, in farms ranging from 640 acres up, and they are growing a good deal of grain and forage, that is to say, when a drought or a hail storm doesn't descend upon them. Most of them are milking a string of cows, too. When they told me that nearly all of the farmers down there were now running a small herd of cattle and milking part of them, the first thing I thought of was Michigan. One hundred and sixty acres in Michigan will pasture more cattle than 640 acres in eastern Colorado, to say nothing of Michigan's longer growing season, better climate,

Say, what would the women and children say if they could see hundreds and even thousands of acres of berries growing wild, and clear streams with speckled trout and no alkali water, and grass and shade, and deer jumping into the brush! They would feel just as my wife did. She didn't want to go back home.

A good many of these people figure on cashing in their property. They are back from the railroad, and have no good auto roads. Their children are not able to take up any more land because it is all taken, and some of them haven't enough land. It is a hard life for the women and children. The weather is extremely hot in summer as well as being dusty and windy, and extremely cold in winter, with blizzards, and electrical storms that kill a good many people, cattle and horses every year. You have to go to



While the West is Dry, Here is a Ditch Dug in One Blast on Cut-over Land

and her abundance of fruit, fish and game that are to be had just for the reaching out and taking.

You have no idea what those people down there have gone through. Pioneering on the plains is some he-man's job. I have seen blizzards there in April that wiped out the biggest part of a herd in twenty-four hours, and even nowadays when they have a crop about grown a hail-storm will come along and in a few minutes beat every vestige of the crop into the ground. In fact, that very thing happened while I was down there this time, and the hail generally hits some part of the country every year.


If those people could see the clover and timothy and blue grass that grows all over Cloverland, I venture to say there would be something doing in the land business, for they can get from twenty-five to fifty dollars per acre for their land down there, and I was offered better land in Michigan on a rock road and a railroad for ten dollars an acre.

a great depth for water, and the water that you finally strike is not very good.

The people who have a small bunch of cows and farm a little are tied right down, and don't get out to see the country as the sheep and cow men who operate on a larger scale are able to do.

They consequently can't leave their farms long enough to see what other regions have to offer them. A friend of mine down there is in just such a situation. Moreover, his family has been ill, and he can get no help about the farm. Yet he could sell out for a hundred thousand dollars. Michigan would be a paradise to him and his family, as it would be to thousands in the same predicament. These pioneers would make Cloverland blossom, and they seem interested when the subject of the new north country is mentioned.

Respectfully yours,
(Signed) DEL PRATT.
Moneta, Wyoming, October, 1920.



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for
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NO doubt you have known that for over three centuries "Old Faithful" HEMLOCK has been a favorite lumber with farmers for buildings, large or small—houses, barns, outbuildings, cow sheds, hog and poultry houses, granaries, silos, etc.—all-purpose HEMLOCK.

But did you know about these well written, and very interesting

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- No. 4—Garages
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- No. 7—Hog and Poultry Houses
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which contain pictures of the buildings and a coupon for FREE FULL-SIZE WORKING PLANS for building them?

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Each book is chock-full of information about "Old Faithful" HEMLOCK and gives the reason for its being such a popular favorite with farmers all these years.

The plans have been worked out by the best architects, on our special order, for real farm homes and other buildings, up-to-date, practical.

Write us for the book you want. Mention the name of your dealer. Then take the coupon for the free plans that you'll find in the book, to him.

That's all there is to it. He will sell you the HEMLOCK when you are ready.

Take your pick TODAY and drop us a line. A post card will do.

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(of Wisconsin and Northern Michigan) Offices 312 F. R. A. Bldg., Oshkosh, Wis.
We spread the good news about "Old Faithful" HEMLOCK but we do not sell it. Get it from your LOCAL LUMBER DEALER.

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MORE FARMERS

There is room for 100,000 new farmers on the cut-over lands tributary to the SOO LINE in Upper Michigan, Upper Wisconsin, and Northern Minnesota.

Good lands which will fulfill any conditions imposed by the new farmer as to location, soil, climate, rainfall, water-supply, roads, schools, churches and neighbors. Lands which can be bought at a price that will fit the pocket of the poor man, as well as meet the requirements of the man of means. Write for information,

H. S. FUNSTON, Land Commissioner SOO Line Railway
MINNEAPOLIS, MINN.
Wisconsin Central Ry. Land Grant Lands in Wisconsin



These companies were the first to bring cattle to cut-over lands, and carry on profitable and successful grazing in Cloverland.

WE offer the western grazers their choice of 75,000 acres of cut-over lands in Cloverland; 25,000 in Northern Michigan; 50,000 in Florence and Forest Counties, Wisconsin.

Several ranches were selected and taken over last year by well-known western cattle and sheep men.

Write us for particulars or come and see these lands for yourselves.

J. W. WELLS LUMBER CO.
MENOMINEE, MICH.

GIRARD LUMBER CO.

J. W. Wells, President

DUNBAR, WIS.

MENOMINEE, MICH.

Why Choose Agriculture as a Worthwhile Career

By NOBEL MARTIN, a Wisconsin University Boy

IT IS NOT my purpose to discuss problems of life in the country for those whose incomes permit them to follow any desire or notion that may possess them. The career to which I refer is not that of a speculator; nor of the miser, who would increase his landed possessions as he would his gold; nor of the promoter whose desire for the country is to lay it out in lots and sell it to his fellows; nor of the exploiter, who loves to possess only that he may rob and degrade. From my point of view I would set forth for the average man of average means, who wishes to indulge in the natural desire for country life, the danger and difficulties, as well as the advantages of success, of making his home on the farm.

It is evident that those who live in the country must earn a living, but in doing this there is no need that all of the beauties of rural life should be sacrificed until it becomes a burden unbearable. It is not difficult to under-

stand how the youth brought up on a farm turns his longing eyes toward the town. The conditions of farm life, as a rule, are not such as to attract or to hold the farmer's son or daughter. Life does not consist alone in watching the beautiful sunrise, in strolling through a shady forest, or wandering by a running brook. To the farmer's boy life means early rising, hard and continuous labor, plain and often poorly cooked food, hard beds, and an absence of all the opportunities which the youth so strongly desires. It is just as natural for the farmer's boy to look toward the town as it is for the town boy to look toward the country, but these conflicting desires arise from different sources.

To the farmer's boy the town appeals as a means of a career. The country appeals to the city boy as a place of rest and quiet enjoyment. When you turn your face toward the city you go to hard struggle, a hard environment, to a life surrounded by temptations. When you face the country, on the contrary, you look to a life of repose, of quiet, not devoid of labor, but with greater certainty of success and less ignominy of failure. The one is an instinct to return to the natural life, the other is a desire to acquire the artificial life. Each of them is logical and each of these desires must be reckoned with from the standpoint of practical philosophy.

Some of the strongest leaders of the day, in all the professions and urban calling of life, have come from the ranks of the plowboys. Many of the men who are doing the work of saving America for the noblest things, are men recruited from the hill towns of

New England, or the prairies of the middle west. It is a splendid tribute to the farm homes of America that they have sent out such a multitude of magnificent leaders of men. At the hearthstone of ten thousand farm homes today, from Maine to Texas, from the broad fields of North Dakota to the Gulf of Mexico, sit the lads who are to become the orators, statesmen, preachers, judges and captains of industry of the next generation.

We, of course, rejoice in this record of the American farm, but we cannot avoid a feeling of regret that so many of the men who could have been leaders on the farm have chosen their work elsewhere. For we might as well face the fact that there has been and perhaps is today, a lack of leaders on the farm. There are countless thousands of farmers who are intelligent and able, men of clean thought, men of deep convictions, yet how often even such men are unable to hold their own with other men in conferences, de-



We Are Beginning to Farm Scientifically

bates, conventions. I sometimes think that the business of farming itself, as it has been conducted, does not develop the power of leadership. It does develop strong, self-reliant, independent individuals, but I am not sure that it has tended to bring out the power that puts a man at the head of a company of his fellowmen. It might be nearer the truth to say that farming has developed a fair number of local community leaders, but not enough men to represent the industry in the greater councils of civilization. Then, too, there is the strange fact that oftentimes farmers will not trust their own leaders, especially in politics. How often they seem to prefer the leadership of a lawyer or a business man to the leadership of one of their own members. Is it a case of prophet without honor in his own country, or is it jealousy? But the fact remains, that many young men are led by their conditions to seek their career elsewhere than on the farm.

Before dwelling with any detail upon these new opportunities which lie at your feet, I want to direct your attention definitely and squarely to the supreme reason for the need of leadership on the farm. We are apt to think of the farm problems as a question of raising more produce. The Secretary of Agriculture is reported to have said that in 1920 the production per acre will be twice as great as it was in 1910. Our "corn specials" and "potato specials" seek to preach the gospel of greater crops. Now all this is well. You may have this foundation of farmers success. But my plan is that in your eagerness for more land, for greater crops, for prize-winning live

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stock, you may lose sight of the real farm question. This real farm question is not merely one of bigger crops; it is not merely one of better business methods; it goes down far deeper than that.

The farm question is the question that asks, "What about the people who farm?" The man behind the plow—not the plow, not the team, not the furrow, but the man—is the chief factor. What sort of people are we to have upon our farms? What is to be their condition? Are they to be owners of the land they till or tenants on vast estates? Are they to be an intelligent, educated, independent people, or are they to become peasants—a caste of hard-working, honest, but dull and uncompromising men with the hoe? *Are the American farmers to keep pace with the American civilization*, with all that it implies of opportunity for social privilege, political intelligence, educational endeavors, moral stamina? Or are they to lag behind until hopelessly lost in the distance, with some future Goldsmith to bewail their decadence?

I think of four ways in which this leadership may show itself, and the first is in "Good Farming." There is no question but the fundamental need of American agriculture today is better farming. We have practiced altogether too much a mere skimming of the soil. We depend on native soil fertility but nature is exhaustible. For the future we must rely on the brains of men to devise methods of preserving or restoring soil fertility. We are only beginning to learn to farm scientifically, and you young men who have had the opportunities of the agricultural school have a chance for leadership in this campaign for better farming. You have the opportunity to become the best farmer in your neighborhood—not necessarily the wealthiest, but the best. This is your first opportunity, this is your first chance for leadership.

But I hope that you are thinking not merely of the present success that

an agricultural education is going to give you, but also of the opportunity it affords you to show the advantage of training, to demonstrate new methods, to be of assistance to your neighborhood in raising the quality of farming and increasing the success of your neighbors. You ought to be ambitious, therefore, not only to make your own farm the best farm in the neighborhood, but to make your neighborhood the best farming neighborhood in the state. If you do the first thing only, you will do well, but if you help accomplish both results, you will be a true leader.

The second opportunity for leadership to the young man on the farm comes in the line of *education*. One does not need to be an expert to understand that the question of rural education is fundamental not only to better farming but to rural progress generally. Our whole American civilization rests on a basis of education. The school is the greatest glory of American life, consequently the development of the rural school with the education of the rural people looms up as a problem vital not only to the class of the farmers themselves, but also to our American life. The rural school must be as good a school as any other. The farm boy and girls must have as good opportunities as any other boys and girls have.

Now this problem of rural schools is not for schoolmen only. It is not merely a question that concerns the teacher, the superintendent of schools, or the state superintendent, or the agricultural college, but it concerns chiefly the men and women who live upon the farm; it is a question that confronts every rural citizen. You may live in a community where possibly the school is inferior, you may have a school that has a poor equipment, that hires a poorly paid teacher. You may discover that many patrons of the school, perhaps men who have large families of children to be schooled, take more interest in training their

(Continued on page 20)



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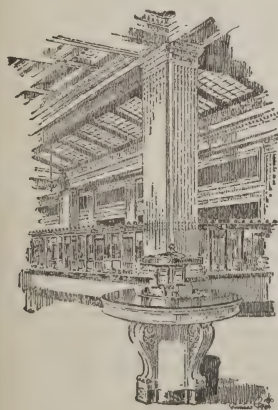
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Clay loam, sandy clay loam, sand loam and sand
soils at \$5.00 to \$15.00 per acre.
Generally well watered.

J.M. LONGYEAR, *Agent*, Marquette, Mich.

D. S. DEAN, *Treas.*, 87 Milk St., Boston, Mass.

Fifty Counties in Upper Michigan Have Millions of Acres of Idle Lands

CLOVERLAND is now on the map as the greatest live stock and dairy district in the United States today—it is the last frontier of America. Are you going to grasp the opportunity now or wait until prices begin advancing and eventually become prohibitive for the homeseeker or careful investor?

Inquire Now;
Prices Are Low

The Public Domain Commission of Michigan

WILLIAM KELLY, *Chairman*, Member Board of Control, College of Mines;
JUNIUS E. BEAL, Board of Regents, University of Michigan;
THOMAS E. JOHNSON, Superintendent of Public Instruction;
COLEMAN C. VAUGHAN, Secretary of State; ORAMEL B. FULLER, Auditor General;
WILLIAM H. WALLACE, State Board of Agriculture;
GEORGE L. LUSK, Secretary Commission and Commissioner of Immigration

With Bridges Burned

By REX BEACH

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SYNOPSIS:

Louis Mitchell was laid off with other employees of Comer & Mathison, contractors, when the bottom dropped out of the steel business. The firm had no work, and rigid retrenchment was the policy. The blow fell heavily upon young Mitchell, recently married, wounding his pride more than questioning his ability as a salesman.

Mitchell had heard that a firm in London was advertising for bids to build cyanide tanks in South Africa to replace property that had been destroyed by the Boers. It was a \$3,000,000 job. The firm scoffed at Mitchell's proposition to attempt to land the contract.

Mitchell talked the matter over with his young wife and they decided he could get the job. Out of \$1,000 they had saved Mitchell took \$900 and sailed for England, to figure and bid against the biggest competition he had ever been in. He won the biggest job he had ever tackled, and in a foreign country where all conditions, manners and customs were strange.

In the face of English reserve hauteur and prejudice against all things Yankee, Mitchell shouldered his way into the regard of Peebley, head of the South African concern, and, with a distressing time limit hanging over him, set about to twice figure the blue-prints, preparatory to entering his bid for the construction of the tanks.

Mitchell gained the friendship of Peebley's staff, and during a dinner he gave for them he gained invaluable facts concerning the situation. Pitt, head draughtsman, unwittingly informed Mitchell that his first bid was far the lowest. Fearful of a slip in his final calculations he devoted his last spare sovereigns to engaging an engineer to check his figures. He had won himself out, and was on the verge of collapse.

He unrolled the blue-prints, from drawer he produced a sliding-rule. He laid this rule up; he slid it down; he looked through his glasses at space made microscopic Spencerian figures in neat rows and columns. He tried to pluck his results from the air with necromantic cunning, and what he taken the young man at his elbow saw and nights of cruel effort to accomplish—what had put haggard lines about his mouth and eyes—the engineer accomplished in a few hours by means of that sliding-rule. Meanwhile, with one weary effort of will his visitor summoned his powers and cross-examined him adroitly. Her was the very man to supply the missing link in the perfect chain; but Mr. Dell would not talk. He did not like Americans nor American methods, and he made his dislike apparent by sealing his lips. Mitchell played upon his vanity at first, only to find the man wholly lacking in conceit. Changing his method of attack Mitchell built a fire under Mr. Dell. He grilled everything British, the people, their social customs, their business methods, even English engineers and he did it in a most annoying manner. Mr. Dell began to perspire. He worked doggedly on for a while, then he arose in defense of his country, whereupon Mitchell artfully shifted his attack to English steel-mills. The other refuted his statements flatly. At length the engineer was goaded to anger, he became disputative, indignant, loquacious.

When Louis Mitchell flung himself into the dark body of his cab, late that evening, and sank his legs knee

\$400,000 Paid to Cloverland Farmers on Nov. 15 for Sugar Beets by Menominee River Sugar Company

This immense amount was paid for beets shipped up to November 1st, and another pay day will be on December 15th, for November shipments.

This is the largest single payroll ever made up by any beet sugar company in Cloverland. It tells its own story of the profit in raising sugar beets.

The Menominee River Sugar Co.

OXFORD DOWNS

Yearling Rams and Lambs
Yearling Ewes, Breeding Ewes
of all ages.

Write at once for prices

HIGHLAND STOCK FARM

W. D. MCGILL & SON, Props.

Breeders Pure Holstein, Friesian
Cattle and Oxford Down Sheep.

TEMPLETON WISCONSIN

"Love & Sympathy"

Truly Expressed by
Flowers or Emblems

from

DULUTH FLORAL CO.,

Duluth, Minn.

deep into those hateful blue-prints, he blessed that engineer, for Dell had told him all he wished to know, all he had tried so vainly to discover through other sources. The average "overhead" in British mills was one hundred and thirty per cent, and Dell knew.

The young man laughed hysterically, triumphantly, but the sound was more like a tearful hiccough. Tomorrow at ten-thirty! It was nearly over. He would be ready. As he lolled back inertly upon the cushions he mused dreamily that he had done well. In less than two weeks, in a foreign country, and under strange conditions, without acquaintance or pull or help of any sort, he had learned the names of his competitive firms, the dates of their bids, and the market prices ruling on every piece of steel in the Krugersdorf job when those bids were figured. He had learned the rules governing English labor unions; he knew all about piece-work and time-work, fixed charges and shop costs, together with the ability of every plant figuring on the Robinson-Ray contract to turn out the work in the necessary time. All this, and more, he had learned legitimately and without cost to his commercial honor. Henceforth that South African contract depended merely upon his own ability to add, subtract, and multiply correctly. It was his just as surely as two and two make four—for salesmanship is an exact science.

The girl would be very happy, he told himself. He was glad that she could never know the strain it had been.

Again, through the slow, silent hours of that Wednesday night, Mitchell fought the fatigue of death, going over his figures carefully. There were no errors in them.

Dawn was creeping in on him when he added a clean thirty per cent profit for his firm, signed his bid, and prepared for bed. But he found that he could not leave the thing. After he had turned in he became assailed by sudden doubts and fears. What if he had made a mistake after all? What if some link in his chain were faulty? What if some other bidder had made a mistake and underfigured? Such thoughts made him tremble. Now that it was all done, he feared that he had been overconfident, for could it really be possible that the greatest steel contract in years would come to him? He grew dizzy at the picture of what it meant to him and to the girl.

He calmed himself finally and looked straight at the matter, sitting up in bed, his knees drawn up under his chin. While so engaged he caught sight of his drawn face in the mirror opposite and started when he realized how old and heavy with fatigue it was. He determined suddenly to shave that profit to twenty-nine per cent and make assurance doubly sure, but managed to conquer his momentary panic. Cold reasoning told him that his figures were safe.

Louis Mitchell was the only salesman in Mr. Peebleby's office that morning who did not wear a silk hat, pearl gloves, and spats. In consequence the others ignored him for a time—but only for a time. Once the proposals had been read, an air of impenetrable gloom spread over the room. The seven Scotch, English and Belgian mourners stared cheerlessly at one another and then with growing curiosity at the young man from overseas who had underbid the lowest of them by six thousand pounds sterling, less than one per cent. After a while they bowed among themselves, mumbled something to Mr. Peebleby, and went softly out in their high hats, their pearl gloves, and their spats—none like pall-bearers now than ever.

"Six hundred and thirty-seven thousand five hundred pounds sterling!" said the Director General. "By Jove, Mitchell, I'm glad!" They shook hands. "I'm really glad."

"That's over three million dollars in real money," said the youth. "It's quite a tidy little job."

Peebleby laughed. "You've been

COUNCIL MEATS

Better Meats That Cost Less
No Waste · No Ice Needed
Always Tender
Ready-Cooked To Perfection

Made in
Cloverland
in our
\$2,000,000
Packing Plant
at Green Bay,
Wisconsin

Every Council Brand
Label
Advertises Cloverland

Ours is the largest
producing industry in
Cloverland today.
Make it yours, too.

Stop Buying Water- at the price of meat

A GOODLY part of the meat you buy is water, and when the meat is cooked much of the water in it—for which you have paid—goes off in steam. The water is just so much more waste for which you pay, just like the uneatable trimmings.

Council Meats in cans are ready-cooked—the water isn't counted in the weight for which you pay. Neither is there any waste, for every bit of a can of Council Meats is good nutritious food.

And it is so easy to prepare Council Meats!

Take Veal Loaf for instance. To prepare it yourself at home means a good bit of work and trouble and time. But when you buy Council Veal Loaf it is all ready-cooked and it only has to be warmed in the can—opened—sliced—served. All the other Council Meats are just as easily served.

INDIAN PACKING CORPORATION
Consumers' Building, Chicago, Ill.

Six Economical Meat Meals

ROAST BEEF For 5-70c	CORNED BEEF HASH For 5-70c	VIENNA STYLE SAUSAGE For 5-60c
SLICED DRIED BEEF For 4-30c	POTTED HAM For 5-80c	OVEN BAKED BEANS For 4-25c



very decent about it, too. I hope to see something of you in the future. What?"

"You'll see my smoke, that's all."

"You're not going back right away?"

"Tomorrow; I've booked my passage and cabled the girl to meet me in New York."

"My word! A girl! She'll be glad to hear of your success."

"Oh, I've told her already. You see, I knew I'd won."

The Director General of the Robinson-Ray Syndicate stared in open amazement, but Mitchell hitched his chair closer, saying:

"Now let's get at those signatures. I've got to pack."

That night Louis Mitchell slept with fifteen separate contracts under his pillow. He double-locked the door, pulled the dresser in front of it, and let the light burning. At times he awoke with a start and felt for the documents. Toward morning he was seized with a sudden fright, so he got up and read them all over for fear somebody had tampered with them. They were correct, however, whereupon he read them a second time just for pleasure. They were strangely interesting.

On the Deutschland he slept much

of the way across, and by the time Liberty Statue loomed up he could dream of other things than blue-prints—of the girl, for instance.

She had enough left from the eighty dollars to bring her to New York and to pay for a week's lodging in West Thirty-fourth Street, though how she managed it Mitchell never knew. She was at the dock, of course. He knew she would be. He expected to see her with her arms outstretched and with the old joyous smile upon her dimpled face, and, therefore, he was sorely disappointed when he came down the gang-plank and she did not appear. He searched high and low until finally he discovered her seated over by the letter "M," where his trunk was waiting inspection. There she was, huddled up on a coil of rope, crying as if her heart would break; her nerve was gone, along with the four twenty-dollar bills; she was afraid to face him, afraid there had been an error in his cablegram.

Not until she lay in his arms at last, sobbing and laughing, her slender body all aquiver, did she believe. Then he allowed her to feel the fifteen contracts inside his coat. Later when they were in a cab bound for her smelly little boarding-house, he showed them to her. In return she

gave him a telegram from his firm—a telegram addressed as follows:

Mr. Louis Mitchell,
General Sales Manager,
Comer & Mathison,
New York City.

The message read:

That goes. COMER.
Mitchell opened the trap above his head and called up to the driver: "Hey, Cabbie! We've changed our minds. Drive us to the Waldorf—at a gallop."

[The End]

Carry your convictions as to the value of blooded cattle into your poultry yard. A season of culling and the importation of a pedigreed cockerel will give you further convictions.

Willow Row Hampshires

Our flock is one of the oldest and largest of this popular breed in Illinois. Only the very best imported and home-bred rams in service. Write for prices on what you want.

R. J. McKEIGHAN & SON
Yates City, Illinois

WE HELP YOU!

All we ask of any experienced stockman or farmer is a clean record, possessing ambition and the energy to go forward. If you have these requisites write to us and we will give you a choice location on some of our best cut-over land on terms and conditions that will enable you to make a success if you have the right kind of stuff in you.

Write to Us

Tell us about the size acreage you want, what you want to do with it, whether you now possess any stock—beef cattle, dairy cows, sheep or swine, and horses—whether you have any farm implements and tools, and give us one or two references.

We Will Do the Rest

We have thousands of acres of good, hardwood cut-over land, watered with clear streams and lakes, with an abundance of grass and clover going to waste each year. There are no commissions to pay. We own the land and make terms and arrangements with each purchaser to suit his needs, and give aid in establishing credit and banking connections. Tell us frankly what you want. All correspondence confidential.

SAWYER GOODMAN COMPANY
MARINETTE, WISCONSIN
Or
GEORGE H. HEDQUIST, Supt.,
GOODMAN LUMBER COMPANY
GOODMAN, WISCONSIN

Why Choose Agriculture as a Career

(Continued from page 17)

colts than they do in the education of their children, who are more ready to pay goodly wages to the foreman who can develop a prime steer than they are to the teacher who, for eight or ten years, is the leader, trainer and developer of the mind and soul of their boys and girls. You will find men who are willing to build a beautiful farm, willing, also to send their children to a school house that is merely a square box. Here is your chance. Study the school question. Make sure of your grounds. But stand like a rock against economy that is parsimony, preach the need of the best school. Do not expect results at once. Work with your teacher and county commissioner of schools. Do not take up with all their fads, but join with them in every progressive step. Lead the community, do not drive it. Persuade the taxpayers of the practicability of progress. Nay, show them their duty to the boys and girls.

I know of no better opportunity for leadership than right here, in your own place. Does your neighborhood need a farmers' institute? See that it has one. Help get up a good program—help in arousing enthusiasm. See that your neighbors attend as well as yourself. Take some part in the discussions. Ask questions. Show that you are interested. Do all that you

like ours, that a class, especially a class isolated somewhat as farmers are may lose vital touch with the general problems of the day.

Not only is there a need of leadership for better farming, for better education, for better government, but there is need for leadership in general "Progress in the Rural Community." I believe that the farm problems are not likely to be fully solved until the farmers learn to unite themselves in strong, conservative, permanent organizations. They are of the utmost importance to the individual farmer, in order that he may find a chance to develop himself as a man, as a speaker, as a social being. It is necessary for the community to have a forum where there can be discussed questions of common interest to the people of the community, not only as farmers, but as citizens. I believe that the farmers' organizations are necessary in order that the farmers' class as a whole shall be trained to work together, to develop their class interests, to make their class power felt in the great movement of the day. And you can do nothing better than to study this question and to assist in the formation and permanent maintenance of adequate farmer organizations. This criticism may be too sweeping, but is



The Modern Farmer Keeps Pace with Improvements

can to create a good atmosphere in the meeting. Talk about it when it is over. Plan for a better one next year.

Does your neighborhood lack a good library? Start a movement for one. See that good books are chosen. Get the teachers and ministers interested. Read yourself. Take the best farm papers. Work for a better grade of agricultural fairs. You can also help mightily in arousing interest in the agricultural work of your state "U." You can induce other young men to attend. These are some of the ways by which you can foster agricultural education. Here, then, is a magnificent chance for leadership. You ought to be appreciative of the need of education. You are in a position to understand its value. And you are, to a certain degree, trained for leadership in the movement which attempts to enlarge its sphere. It is your privilege therefore to stand as a leader in every movement for the upbuilding of the rural school and for the development of all the means of agricultural education.

There is another phase of this question that ought not to be passed by. Our farmers are not only farmers, but American citizens. They are therefore interested not alone in the welfare of this industry, but in the welfare of their country as well. No class of citizens is more patriotic than farmers, no class more desirous of a "square deal" for all. But there is always the danger, in a great country

there not great truth in it? What do you purpose to do to bring about a better order? Surely the surroundings of the farmer ought to be ideal. He has nature for his perpetual guest. She is kind to him, for she furnishes the feast. Let us then have more beauty in farm life. Let us teach men to love the sunrise, to exult in the smell of the clover blossoms, to feel the exhilaration of contact with the soil, to be contented when the sun goes down in glory beyond the purple hills. Let us choose our furniture and our pictures and build our houses for beauty and not for show nor for mere utility. Make tree and flower and shrub minister to the joy of living. Be friends with God's out-of-doors.

In 1920, 6,000 acres of flax were cultivated in the United States, as against 5,000 acres in 1919, the United States Department of Agriculture estimates. Wisconsin, Minnesota, Michigan, and the Willamette Valley of Oregon lead in production. The 1920 crop is valued at \$1,600,000.

No one is in position to make so good a profit from poultry as the farmer, his wife, sons and daughters. There is abundant range and a great deal of waste material which can be utilized as poultry food and there is always a demand for good poultry and eggs at good prices.

The Northern Minnesota Farmer



HARVESTS
TWICE
A DAY

TWICE a day the farmer of Northern Minnesota harvests the returns from his labors. The dairy cow on the natural and cultivated clover and root crops gives forth a golden yellow harvest that is as sure as night will follow day. Hail, wind, rust, nor frost can rob the Northern Minnesota farmer of his reward.



THE NATIONAL BANK OF NORTHERN MINNESOTA	
DULUTH MINNESOTA November 1, 1920	
PAY TO THE ORDER OF <u>Geo. Smith</u>	\$ <u>118.25</u>
<u>One Hundred Eighteen and 25/100</u>	DOLLARS
No <u>315698</u>	CLOVERLAND CREAMERY
	<u>John Roe</u> CASH. MANAGER

We have lived in Northern Minnesota a great many years. We know the lands of Northern Minnesota thoroughly. Through our operations we have acquired large acreage of lands. We will sell them in small or large tracts on a basis that assures you our interest in your success.

Cloquet Lumber Company

Johnson & Wentworth Lumber Company

Northern Lumber Company

CLOQUET, MINNESOTA

Upper Peninsula Cut-Over Lands

Suitable for Grazing or General Agricultural Purposes

FOR SALE

in Alger, Chippewa, Gogebic, Luce,
Mackinac and Schoolcraft Counties

THE Northern Peninsula of Michigan is the best Livestock and Dairy country in the United States, if not in the world. It can care for 8,000,000 sheep and 1,000,000 head of cattle.

For information write

LAND DEPARTMENT, Charcoal Iron Company of America
MARQUETTE, MICHIGAN

ROSECO BRAND

Food Products

The Standard of Excellence in Greater
Cloverland



Follow the Sign of the Rose

ROACH & SEEBER CO.

Wholesale Grocers

CALUMET, MICH. MARQUETTE, MICH. HOUGHTON, MICH.
IRONWOOD, MICH. WATERLOO, WIS.

Virgin Soil Versus Farmed-out Agricultural Areas

By LAWRENCE TUCKER

THE Boston Evening Transcript, of Boston, recently quoted "Farm and Fireside," of Springfield, Ohio, as intimating that "eastern New York and New England are about the only sections that now have cheap agricultural land, and they have it, too, in conjunction with good and near markets." At least that's the way the Transcript correspondent puts it—and he quotes Farm and Fireside as his authority.

There is no objection to eastern New York and New England exploiting their own proposition, nor do we claim any jurisdiction over the manner in which such a campaign is carried out. But we do take exception to the statement that "eastern New York and New England are about the only sections that now have cheap agricultural land." We even grant that eastern New York and New England may have good, cheap agricultural land, but it doesn't end there, by any means.

There seems to be an erroneous impression, prevalent throughout the farming districts of the east, that the west and middle west are rapidly becoming farmed out. The truth is that the northern sections of Wisconsin, Michigan and Minnesota have hardly made a start upon the vast possibilities of that section for agricultural development. And the reason: The rapid development of the lumbering industry in that region has created such a vast amount of cut-over land, that, in spite of the fact that thousands of new settlers locate there annually, it is still a problem how best to utilize the millions of acres of excellent agricultural land still idle, and available.

I believe that the Upper Peninsula Development Bureau, at Marquette, upper Michigan, is in a position to say that the middle west is adequately equipped to handle all of the "overflow" from the far west. We agree with the eastern writer in his statement that much of the available land in the far west is now exhausted, at least that much of it as may have been particularly adapted to agriculture. We admit, also, that there is an increasingly marked tendency toward emigration from the far west—but not as far as eastern New York or New England.

The eastern writer further asserts that "southern Wisconsin, northern Illinois and the whole of Iowa, agricultural land, is now worth from \$100 to \$500 an acre." True enough, particularly in Iowa. We readily admit that some of it may be "worth" from \$100 to \$500, but the fact remains that at least 4,000,000 acres of the 8,000,000 or more idle acres in Northern Michigan alone may be purchased at from \$12 to \$20 an acre—and this includes only those areas which are best

adapted to agriculture. It refers only to cut-over lands—virgin soil; land which has never been worked, and which holds a life-time of possibility in its particular adaptability to crop and diversified farming, or grazing.

Thus, when the writer refers to Southern Wisconsin, Northern Illinois and the whole of Iowa, and in the same sentence, speaks of the "Middle West" he does not make clear that it is not only distinguishing these particular states from others within the middle western area but that he is also excluding such sections as may have something to offer in an agricultural way. He makes no mention of Northern Minnesota, Northern Michigan or Northern Wisconsin.

It is not Upper Michigan's intention to compete, at this time, with actual results which are being achieved in Iowa, and which have been achieved in eastern New York and New England. We are just beginning. We readily recognize the fact that Iowa, today, leads every other section for its productivity, in agriculture. We readily admit that New England or New York, in their day, have contributed heavily to this nation's reputation for high-grade, large-quantity crops. Yet, we do insist, that, with very little exception, there is even possibility in Upper Michigan's \$1 and \$20 land for another Iowa and another New England. That being the case, you ask, why the low prices for what we claim as the best agricultural land. The mere fact that the rapid inroads of the heavy lumbering operations has created such vast areas of idle lands and that fact only—made possible, and necessary, such almost ridiculously low rates for the best of these lands. The prices are "introductory."

No—the middle westerner, and the westerner, are not looking to eastern New York nor New England for their great opportunity. In Northern Michigan, Wisconsin and Minnesota he can find all that he requires: Accessibility to the market, equal distribution of sunshine and moisture, close co-operation of the state and county agricultural departments and adequate transportation facilities by rail, water or highway. And what more does he want?

Toward the close of his article the eastern writer refers to the "famous fortunes of the New England farms. Our own region is not yet far enough advanced to permit of any famous fortunes. Yet, when that time comes—and we confidently expect it in the near future—we doubt whether or no we will have any more good, cheap agricultural land to offer. We believe mills of the past they now have creameries, canning factories and pickling plants to care for the agricultural and

Fairland Stock Farm

offers Hampshire and Shropshire rams and ram lambs by the carload or singly in crates at just a little above mutton prices; also a few ewes and ewe lambs.

D. J. STAHLY, Proprietor
Middlebury
Indiana

lairy products of the surrounding territory.

Since the early days the price of feed has increased in Cloverland, not through speculation or land boom, but through development and improvement, until at the present time we boast of some of the best farms, dairies and ranches in the United States. Some of the herds contain world prize-winners in the line of milk and butter at poundage. The dairymen of the entire district are fast getting into purebred lines. The grade cow is getting to be a thing of the past in Cloverland, even the smaller dairymen who still have graded cattle are bettering their line through the constant use of purebred sires.

The ranchers who have come here from the west are responsible for the statement, that sheep and cattle do far better on wild Cloverland pasturage than on western grazing grounds.

That the big packing industries believe this northland is to become one of the greatest producing parts of the nation in their line is proven by the fact that they are now erecting large packing and slaughtering plants at points within easy access to Cloverland. Two instances are the Armour 12,000,000 plant recently erected at St. Paul and the Cudahy slaughter house at Duluth.

The natural opportunities offered by Cloverland assures its ultimate success, if there was nothing else to guarantee it. The healthful, vigorous climate, the soil ranging from a sandy loam to a heavy clay loam, the many streams, rivers and lakes, abundant rainfall, the lack of difficulty in getting the purest and best well water in the world; in fact, it has been asserted by some doctors and chemists that in many parts of Cloverland the water obtained from the wells contains sufficient iron to be a healthful tonic. The schools throughout Cloverland are second to none in the country. The numberless small towns and numerous large cities in the district afford the best of a market at top notch prices or all farm products. In getting produce to market the farmer has the service of eight trunk line railroads which penetrate the district, and the very best of town and state highways. As an illustration of the road system being installed in Cloverland, Douglas County, Wisconsin, alone is constructing \$250,000 worth of concrete road this year.

Such are the advantages which make Cloverland a success and assure its future, and likewise cause it to be recognized as the greatest frontier America has offered her people.

The time has come when even following the old lines of least resistance the answer is Cloverland. Many people argue that this land is hard to clear. True, we will grant that some of it is, but still there is much that is easily cleared, and after all what is more worth having than that is too easily gained? On the other hand, we must consider that once cleared, these northern acres are ready to produce. They do not require irrigation, etc., and are originally fertile owing to a covering of a heavy leaf mould. It is the easiest land in the United States

to keep up. Dairymen, of course, have absolutely no trouble in the line of fertilizer. But even the truck and other branches of farming in this country not having the manure to rely on for fertilizer, have no trouble in this respect. They find that a crop of this northland clover, after the hay has been cut the first time, will grow sufficiently to turn under in the fall, and proves to be the best fertilizer obtainable.

There are points without number to be mentioned in favor of Cloverland, which all designate it as the one section of the country today, where prospective farmers or ranchers can go to get exactly what they want. It is not exaggerating to say that in the near future the eyes of the nation will be on Cloverland, for it is there that the increasing agricultural, dairying and ranching activities of the country must take place. And there is room here in spite of the fact that we already have some of the finest dairy and other farms to be found in any section of the country, for there are still thirty million acres of cut-over land available in Cloverland at very reasonable prices. Prices to suit anyone; the city laborer who wants to become an independent man, the renter who wishes to start for himself or the rancher looking for grazing grounds, can each find what he wants at prices which will surprise him.

The past twenty years have marked the close of the logging and lumbering activities in Cloverland, and the growth of an agricultural and dairying industry, which is fast becoming a prominent factor in each of the three states.

At the present time Cloverland is enjoying a wholesome prosperity. The high cost of living does not worry the Cloverland settler to the extent it does many others. He has excellent market for his produce at top notch prices, and with his cows, chickens and garden he can live well at a moderate expense. The high cost of coal causes him no grief, there is enough good wood throughout the district for everyone.

For recreation he has the best territory in the country today, for the two cleanest of sports, namely, hunting and fishing. Every year increases his improvements and property value. In fact, Cloverland offers the best opportunity in the country today for absolute independence.

At the end of another ten years, Cloverland will also be a thing of the past as far as the opportunities it offers today are concerned. The time for the prospective farmer, dairyman or rancher to buy is right now. The growth in the next ten years is inevitable. Cloverland stands out today as the most advantageous frontier open to the people and undoubtedly among the last. Already companies in Chicago and New York are colonizing large tracts of this territory, and sending in whole settlements at a time.

Don't wait too long and be sorry afterward at having to pay the price of improved farms. Information and facts can be obtained from any bank in the district, or by application to this magazine.

Coffee is often the hidden cause of many ills and discomforts

That is because it contains certain elements which are injurious to many people.

If coffee disturbs your health, change to

POSTUM CEREAL

This pure cereal drink is healthful and wholesome, has a delightful coffee-like flavor, but contains none of coffee's harmful elements.

**Sold by all grocers
Costs less than coffee**

Made by Postum Cereal Co., Inc., Battle Creek, Mich.



Truly a Quality Coffee

It is the result of twenty-two years of careful and intelligent blending by coffee experts.



INSIST ON THE GENUINE

ROASTED and PACKED BY

JOANNES BROS. COMPANY

GREEN BAY, WISCONSIN

DOCK COAL

CENTRAL WEST COAL CO.

MENOMINEE, MICHIGAN

Pet Hobbies in Cloverland

By ONE OF THE BUGS



Lauerman Brothers Department Store, Marinette, Wis.

Modern Business Service

WE want Cloverland grazers and farmers to look at this store in that way. We are here to serve you carefully, courteously and whole-heartedly.



The Marinette Store
Whose Perfect Service by Mail
Reaches Your Very Door

You can purchase by mail just as satisfactorily as if you were in Lauerman's Store in Marinette, doing your buying personally. Your goods are shipped same day order is received.

YOU CAN SAVE TIME, FREIGHT
AND MONEY BY SENDING IN
YOUR MAIL ORDERS TO US

It will be of great benefit to you to have your name on our mail-order list and receive price lists and quotations on whatever you need.

EVERY man has his hobby and every hobby has its coterie of devotees—its fans and followers—men and women who "dote" on this thing or that and to whom no sacrifice nor inconvenience is too great for the realization of their pet hobby. We see them in every station of life—the crawling babe with his hobby for toys; the growing boy, with his hobby for guns or athletics; the young man with his hobby for inventions or study; the young girl, with her hobby for pretty gowns and a "steady beau"; the middle-aged man, with his hobby for horses or automobiles; the middle-aged woman with her hobby for needlework, cooking, etc.; and, in fact, every individual must confess, at some time or other during his or her life, to having been ruled and swayed by a pet hobby.

And there are extremes in every case. I have heard tales, for instance, of a plant "hobbyist" crawling for miles on his hands and knees in the search for an hitherto-unknown sprout; I have read of inventor "hobbyists" shutting themselves up in their laboratories or studies for weeks and months at a time, without communicating with the outside world, in a frantic effort to perfect an intricate mechanism; and, in fact, we hear and read, every day of our lives, of the deeds of the world's "hobbyists"—some of them springing into prominence over their untiring pursuit of their "pet hobby."

Just at present I lay claim to no particular hobby other than that of assuring myself of the "three squares and a roof" each day—and it's a little hobby one has to work to death these days in order to get any satisfaction out of it. But in our work with the tourists this year we believe that we have brought to light a "hitherto unheard-of" class of hobbyists, and for want of something better to call him we will dub him the "tourist-hobbyist." And his is a distinct class.

The tourist-hobbyist is a queer, distinctive type of animal who knows what he wants when he wants it and will accept nothing as a substitute. He starts his trip with a fixed determination of the conditions under which he wants to travel and the experiences and sensations he expects to encounter—and nothing under the broad blue can shake him from his convictions and desires.

There is, for instance, the very dangerous type known as the "fishing bug." He has planned his summer with but one thing in mind—to fish, and he will fish no matter what the obstacle. Roads, scenery, accommodations and things others hold vital are mere nothings in his path. He is bound for a fishing hole, and you can't hand him a bathing beach as a substitute. And he wants real information. He wants to know where he can catch the most—what kind they will probably be, how much they will weigh, what they measure from tip to tip and what the laws are regarding their capture. He doesn't accept "I think, so-and-so" for an answer.

Then there is the "scenery bug." The joys of a smooth-surfaced road, insofar as the construction of that road is concerned, means nothing at all. Bathing, boating, fishing and the like are all right for "them as likes"—but ah—the scenery. The towering pines, reaching high into the sky as though to pierce its broad expanse of blue; and the little rivulets, skirting the rocky crags and bubbling alone in their ecstasy—that's the thing. And you can't hand a scenery bug a sandplain—and get by with it. "Can't you direct me to a nice little valley, where here and there the sun creeps in between the foliage, and where a tiny stream courses its way along; and where the sloping hill-sides, rich with the green of summer, present a natural landscape which might be worked into a canvas?" And it's gotta be done.

And the good-roads fiend—a very, very dangerous type. He sees nothing,

talks nothing, and—if necessary—is willing to eat nothing but gravel roads, macadam roads, roads with tar on 'em; roads that are graded, leveled, scraped and marked. No time for the scenery stuff—less for the fishing, boating, swimming, and such rot. Nix. "Show me some reg'lar highways. I wanta trixel," rasping the "r" to give it emphasis. It's a mighty brave man who can look the good-roads fiend in the face and say: "How'd a nice little side-trip do? All corduroy—but the scenery is wonderful—simply wonderful." I tried it once—ask me.

The same rule applies, very forcibly, to the bathing fan, the swimming enthusiast, the golfer, the amateur tennis champ, and professional men of all descriptions. And it's a good one for a man job to find something—some place that will just fit each and every request. We venture the remark that it couldn't be done in any other section except Cloverland.

And then there's the most amusing type of all—the "rear seat tourist"—the man whose hobby it is to sit tight and say nothing, while the other end of the compact maps out the route. "Couldn't you show us a place where the dust isn't quite so thick as it was between This Place and That. Honestly, I thought we would be simply submerged. Now, if you could pick out a nice, quiet place near a lake, or something, where the children could play and John would have a chance to do some much-needed repairing, I would be just too nice for anything."

And then the meanest man—whose pet hobby is knocking everything on everybody, cursing his luck for ever having come and counting the day until his safe arrival "back home"—where he should have stayed.

And now for the most pleasant, hopeless duties of a route picker—trying to satisfy two hobbyists at once. It's usually a case of two-in-a-bunch referring, of course, to the fairer sex. We rarely note any argument in the case of "he and she." If there breathe a man who has successfully coped with the touring troubles of two young ladies—or two not so young, for the matter—let him step forth and present the sympathetic hand, for he knows whereof I speak. It goes something like this:

"Doo you know whether or not the country clubs permit tourists to partake in their dances, and where we might find such clubs?" asks Fair No. 1.

"Why, I believe—"
"No, May, you know I just hate to dance. Why not look up a good place to swim? Maybe the gentleman could tell us about some good bathing beach?" turning hopefully to "us."

"Now, say, I don't intend to waste good vacation paddling around in cold water, when there's so many other things we could do. If you don't want to dance, then why not try to ring in on a game of golf some place?"

Then to "us" again—"May be you can tell us which golf courses are open at this time."

We look at Fair No. 2—sputter a bit and are saved the hazard of an answer.

"Oh, Gee, honest, I can't even hold one of those silly old golf-sticks, let alone play the game. I just won't do it, that's all."

And so forth—ad infinitum.

And they usually wind up by linking arms, splitting a brand new package of Yucatan and walking out of the office with a parting shot about the utter foolishness of having expected any help from "us" anyway.

It's all in a day's work they say—but, take it from one who knows, there is as much of the seasonable variety in trying to direct tourists through a section of country as there is in covering a "murder beat" for a Chicago daily.

"It's something new every day—and it is a matter of constant vigilance to assure oneself of where he is going to 'get off at.'"

OWN A FARM IN CLOVERLAND

The Upper Peninsula of Michigan

"Fifty marketable potatoes and fifteen smaller ones were produced in one hill from one seed potato on farm near Marquette this season."—Michigan Farmer, Nov. 20, 1920.



1. Combined advantage of good and cheap land makes farming in upper Michigan a profitable investment.
2. Moderate climate and ample rainfall makes for rapid growth and maximum production.
3. Rich Cloverland soil adapted to diversified farming.
4. Accessibility to market a distinct feature.

WRITE

The UPPER PENINSULA DEVELOPMENT BUREAU

MARQUETTE

MICHIGAN

These Strong Cloverland Banks Are Ready and Willing to Give Every Possible Cooperation to New-comers. They Invite Correspondence.

First National Bank of Calumet

Calumet, Michigan

Capital \$200,000.00

CALL IN AND SEE US
We are always pleased to serve you

Officers: John D. Cuddihy, Pres.; Edward Ulseth, Vice Pres.; Edward P. Cuddihy, Cashier; Daniel C. Harrington, Asst. Cashier; Pierce Roberts, Asst. Cashier

First National Bank of Bessemer

Bessemer, Michigan

Capital, Surplus and Profits,
\$150,000.00

Oldest Bank in
Gogebic County

ESCANABA

is the leading city in Cloverland

The leading bank in that city is the

Escanaba National Bank

Correspondence Invited

The First National Bank of Alger County

Munising, Michigan

Officers: William G. Mather, Pres.; G. Sherman Collins, Vice Pres. and Cashier; John N. Korpela, Asst. Cashier

The State Bank of Ewen

Ewen, Michigan

Officers: L. Anderson, Pres.; J. S. Weidman, Jr., Vice Pres.; E. J. Humphrey, Vice Pres.; A. M. Anderson, Cashier. Directors: L. Anderson, Calderwood, Mich.; J. S. Weidman, Jr., Trout Creek; E. J. Humphrey, Ewer; J. N. Howlett, Bruce Crossing; J. F. Ferguson, Ewer; Nugent Dadds, Ewer; A. M. Anderson, Ewen.

First National Bank of Iron River

Iron River, Michigan

Capital, \$50,000.00
Surplus, \$20,000.00

We invite letters of inquiry regarding Iron County

Officers: Ellsworth S. Coe, Pres.; Wm. J. Richards, Vice Pres.; A. J. Puhland, Cashier

First National Bank of Marquette

Marquette, Michigan

Over \$2,000,000.00 Resources

Officers: Louis G. Kaufman, Pres.; Edward S. Rice, Vice Pres.; Charles L. Brainerd, Cashier

Marquette National Bank

Marquette, Michigan

Capital and Profits, \$180,000.00

United States Depository

We invite correspondence

Officers and Directors: J. M. Longyear, Pres.; D. W. Porell, Vice Pres.; Chas. H. Schaeffer, Vice Pres.; F. J. Jenkinson, Cashier; H. R. Fox, Asst. Cashier; E. A. Brown, Asst. Cashier; Daniel W. Porell, Asst. Cashier; Chas. H. Schaeffer, Frank J. Jenkinson, A. T. Roberts, R. P. Bronson, E. L. Pearce, J. E. Sherman, J. D. Reynolds, John M. Longyear

First National Bank of Menominee

Menominee, Michigan

Resources Over \$2,000,000.00
Oldest and largest Bank in Menominee County and under same management for 32 years
Depository for United States and State of Michigan

Officers: O. A. Blesch, Pres.; John Hemes, Vice Pres.; C. W. Gram, Cashier; A. J. Klumb, Asst. Cashier

The Lumbermen's National Bank

Menominee, Michigan

One of the Oldest and Strongest Banks in Cloverland

Officers: Warren S. Carpenter, Pres.; Wm. Webb Harmon, Cashier

Commercial Bank of Menominee

Menominee, Michigan

"The Bank of the People"

Invites correspondence from prospective settlers. You can bank by mail with us

Houghton National Bank

Houghton, Michigan

United States Depository
Capital \$200,000
Surplus \$200,00
Undivided Earnings \$250,000

Officers: J. H. Rice, Pres.; W. D. Calverley, Vice Pres.; A. N. Baudin, Vice Pres.; C. H. Frimodig, Cashier; R. T. Bonallack, Asst. Cashier; Edward Romp, Asst. Cashier; F. C. Stoyke, Asst. Cashier

The Newberry State Bank

Newberry, Michigan

Capital, \$30,000.00

Surplus, \$5,000.00

A General Banking Business, Commercial and Savings Departments
3% Interest paid on Savings

Deposits
Officers and Directors: F. P. Bohn, Pres.; W. G. Fretz, Vice Pres.; L. H. Fead, Vice Pres.; E. M. Chamberlain, Cashier; E. L. Fretz, Andrew Weston, J. C. Foster, Matt Surrall

First National Bank of Sault Ste. Marie

Sault Ste. Marie, Michigan

Since 1886 this strong bank has been interested in the growth and development of Chippewa County.
Correspondence invited

Officers: R. G. Ferguson, Pres.; Otto Fowle, Vice Pres.; Chas. S. Osborn, Vice Pres.; E. H. Mead, Vice Pres.; Fred E. Case, Vice Pres. and Cashier

First National Bank of St. Ignace

St. Ignace, Michigan

The oldest and largest Bank, and the only National Bank in Mackinac County

Your business inquiries will receive prompt and courteous attention

Officers: O. W. Johnson, Pres.; E. H. Hotchkiss, Vice Pres. and Cashier

The Marquette County Savings Bank

Marquette, Michigan

Officers and Directors: H. L. Kaufman, Pres.; S. R. Kaufman, Vice Pres.; G. A. Carlson, Cashier; O. E. Barber, Asst. Cashier; E. J. Hudson, E. S. Rice, Louis G. Kaufman, Chairman Advisory Committee

Townsend Bill Appears to Be Remedy

ONE feature of the Townsend plan for a national highway system and a national highway commission to take charge of all the highway activities of the federal government not appraised as yet at its real value, is that feature of the bill now pending in Congress which will prevent for all future times the division and duality of responsibility. This will include both plans and construction of both state and federal highways. Each to stand in future on its own responsibility, if this bill is passed.

When Farmer Smith wants to get the cows in from pasture promptly and in good shape he sends one boy, not two. If he sends two boys, each has a different path he wants to take, and each wants to tell the other the best way to let down the bars. If he sends one boy, that boy is anxious to get the job done.

If a road is to be built it is either a road which is a part of a highway due to be a part of the national system, or else it is not. This being decided, it then becomes, if the Townsend bill is passed, the definite job of one highway department to get that piece of road built as quickly, cheaply and as well as it is possible to build it.

If it is a part of the national highway system then the federal highway commission puts its engineers and contractors on the job and builds it, and is responsible. If it is a state highway then the state department of highways has the same job and the same responsibility. If it is a federal aid road, under the present system, then two sets of engineers, and two sets of inspectors, and two sets of public officials more or less responsible, divide between them both the cost and the responsibility. The money all comes from the same source and is spent on the same roads, but under one plan there is divided responsibility, and loss in efficiency and economy. Under the other plan "one boy will bring home the cows."

This road-building job has been a big problem, and public opinion has been growing and developing about it. When the federal aid co-operation, the "50-50 plan," was passed, it represented the best thought of the time and it has worked great results, but as it has been worked out its defects have appeared. The new plan, incorporated in the Townsend bill seeks to meet these defects, while retaining all that is just, equitable and successful in the 50-50 plan. No state will suffer in the change, each state will get as much federal aid as under the 50-50 plan.

No matter how efficient or how effective any state or national highway plan may be made, there will still be

left thousands of miles of dirt roads for the local communities to build. What everyone wants is the best and most efficient plan to build the permanent roads which will tie these dirt roads together into a real system. For when a dirt road is definitely routed it becomes ambitious to grow into an improved highway, like the adjoining links in its chain. This is the purpose of the Townsend bill.

The First National Bank of DULUTH

At the Center of Cloverland

CAPITAL, SURPLUS
and PROFITS

\$3,250,000

THE development and progress of Northeastern Minnesota has for 38 years been the interest of this bank. In the future of this community and in the success of its people we have a vital concern

Talk your problems over
with us or consult
us by mail.

First National Bank of Iron Mountain

Iron Mountain, Michigan
Resources Over \$1,600,000

Officers:
E. F. Brown, President; J. C. Kimberley, Vice-President; W. J. Cudlip, Second Vice-President; F. J. Oliver, Cashier; Leo H. Mortensen, Assistant Cashier; J. W. Franson, Assistant Cashier

Directors:
E. F. Brown, J. C. Kimberley, W. H. Scandling, A. Bjorkman, W. J. Cudlip, R. W. Pierce, Jr., R. C. Browning, G. O. Fugere

W. P. WAGNER, Pres. H. S. ELDRID, V-P
GEO. D. NAU, V-P. H. P. KLAUS, Cashier
R. W. SMITH, Asst. Cashier

Citizens National Bank

Capital and Surplus \$500,000.00

GREEN BAY, WISCONSIN

Ziegler's Chocolates

Package Goods of
Paramount Quality
and
Artistic Design

OUR Certificates of Deposit afford a convenient and secure manner of investing any desired amount—with the principal always available.

CITY NATIONAL BANK
of Duluth

Fruit Growing Is Profitable

(Continued from page 3)

arden peninsula. More than that, the peninsula enjoys the distinction of being the only section of northern Michigan where butter nuts may be and growing wild. This region has so made rapid steps in agricultural development, although located from twenty to thirty miles from a railroad.

The Peach.

Another revelation which the present season has brought about is the possibility of upper Michigan for peaches. Experimentation with peaches has been in progress in various sections of northern Michigan for many years, with mediocre success. A number of varieties have been tried it, but until this year no one could report definite success with any one pe.

This fall, however, Robert Blemhuber of Marquette brought to light a pe of peach which, experts declare, can surpass the famous California id far-western product. And the at was accomplished in the back- rd of the Blemhuber home.

This type of peach originated from the pit of a California peach planted some ten years ago in the rear of the Selander home at Marquette, id, in respect to that fact Mr. Blemhuber has named his product the Marquette peach. Although the tree in question bore only a half dozen of the fruit, the peaches were of such size, color and texture, generally, as to use widespread commendation.

Success of Peach Assured.

Mr. Blemhuber is rated among the leading farmer-citizens of upper Michigan, and it is his conviction that, under the right kind of soil and climatic conditions, the Marquette peach can be made one of the most profitable enterprises, agriculturally, in the peninsula. A hardy type of tree which has repeatedly proven its resistance to

frost, heavy rains and other unfavorable conditions, there exists, in the discovery of this type of peach, a possibility hitherto unheard of. In his experimental work Mr. Blemhuber has pitted the Marquette peach against various other types, and invariably the former has outlived every other type. This type of peach has been found to thrive more successfully in the light, sandy soil—a surface formation which permits of the straight down-shooting of the roots, resulting in a strong, healthy tree. Given these conditions, Mr. Blemhuber declares, the success of the Marquette peach is assured.

And right here enters the function of a fruit nursery for upper Michigan. Repeated statements that upper Michigan is particularly adapted to fruit, and subsequent successes in small-measure experimental work have created an urgent demand for some means whereby the more hardy type of tree may be selected from the others, and determined as distinctively suited to the northern Michigan region.

Consequently Mr. Blemhuber, as one of upper Michigan's most energetic fruit enthusiasts, is hard at work with the state farm bureau, and the state agricultural department, in an effort to establish a fruit nursery for upper Michigan. "If we could get into this thing on a big scale, set out various types of trees and then satisfy ourselves, from results achieved, of the best type of tree to produce, I am sure that the upper Michigan farmer would soon come to realize the great possibility of this region for fruit," declares Mr. Blemhuber.

It is to be hoped that the state agricultural college and the farm bureau will look upon the suggestion as distinctly vital to the agricultural development of the upper Michigan region.

Coffee Contest Proves a Great Success

CARPENTER COOK COMPANY, of Menominee, through the Cloverland Magazine, has just finished the most remarkable and successful contest ever conducted by any Michigan publication.

Nearly ten thousand answers were received from readers of Cloverland Magazine with suggestions for a new name for the Carpenter Cook Company's famous Golden Cup Coffee.

This coffee, the fastest selling and most popular in Cloverland, has been made by the Michigan Coffee and Spice Mills, of which Frank Barrett is manager, and sold exclusively by the wholesale grocery company for several years. Last summer it was found that the name Golden Cup was a nominal infringement upon a brand of coffee sold in a remote part of the United States, but protected by its own copyright on the name.

The Carpenter Cook Company decided to change to a brand name which could be exclusively their own and subject to their copyright, and it was

determined that their users of Golden Cup Coffee should help select its new name. Prizes of \$200 were offered and William Webb Harmon, George W. Rowell, Jr., and R. M. Andrews selected as the judges.

Checks have been mailed to the winning contestants and in due time, when the copyright arrangements have been completed, Golden Cup Coffee will be introduced to the public under its new and permanent name.

Miss Eva Byrns, Newberry, Mich., won the first prize of \$50; Max Kjerner, Rochester, Minn., second prize, \$25; Rev. Harwood Sturtevant, Racine, Wis., third prize, \$15; Mrs. William Arendt, Detroit Harbor, Wis., fourth prize, \$10.

The names of twenty contestants who won each a \$5 gold piece, and those who were awarded honorable mention, will be found in the advertisement of the Carpenter Cook Company in this issue of Cloverland Magazine.

Union Trust Company of Detroit

THE Union Trust Company, of Detroit, one of Michigan's greatest banking institutions, is well known in the Upper Peninsula, where for twenty-five years it has acted as trustee, safeguarding the interests of men and corporations participating in large affairs.

This great institution is now reaching out for the trust business of the individual and particularly those whom it can so well serve, but who have not realized that fact in its direct application to themselves and their family and business affairs.

The Union Trust Company is a great Michigan bank, governed by the banking laws and with a sustained deposit of \$200,000 with the state officials as a

further guarantee of the faithful performance of its duties. It administers estates, handles property in trust, carries out rigidly the terms of wills and agreements placed in its hands for administration, and offers the best guarantee any one can have that his or her estate will be handled exactly as the testator may instruct before his death, by will or agreement.

The naming of a great trust company as executor or administrator of your will avoids the naming of a relative who may be moved by sentiment or family reasons, or a friend who may upset your wishes even while striving his best to carry them out. The fees of the trust company are the same as paid the individual and are fixed by law.

More Than 10,000 Readers of *Cloverland Magazine* have helped us to select the new name for our famous

Golden Cup Coffee

The Fastest Selling Coffee in Cloverland

In due time, our new name, under our exclusive copyright, will be announced for Golden Cup Coffee. The quality and worthiness of this popular coffee will remain the same.

Find out the whys and wherefores of Golden Cup Coffee's remarkable record and popularity by ordering a package at your grocer's. It will make the whole family glad.

The Great Name Contest

Checks have been sent to the following winners, named by the judges, in the Golden Cup Coffee Contest:

- 1st PRIZE—\$50 in Gold—Miss Eva Byrns, Newberry, Michigan.
- 2nd PRIZE—\$25 in Gold—Max Kjerner, Rochester, Minnesota.
- 3rd PRIZE—\$15 in Gold—Rev. Harwood Sturtevant, Racine, Wisconsin.
- 4th PRIZE—\$10 in Gold—Mrs. William Arendt, Detroit Harbor, Wisconsin.

20 PRIZES of \$5 in Gold each to—

Chris. K. Lundgaard, Cornell, Michigan.
Arthur G. White, Marinette, Wisconsin.
Mrs. Charles Schroeder, Shawano, Wisconsin.
B. Stoneburner, Deer Ridge Farm, Crivitz, Wisconsin.
Leo Van, Green Bay, Wisconsin.
Mrs. Albert Glatius, Munising, Michigan.
F. J. Delye, De Pere, Wisconsin.
Mrs. K. L. Calvi, Iron Mountain, Michigan.
Miss Dorothy Lehmann, Morgan Park, Duluth, Minn.
Miss Affie White, Crandon, Wisconsin.
Miss Alice Curran, Lathrop, Michigan.
Mrs. Geo. W. D'Amour, Goodman, Wisconsin.
Mrs. R. W. Underwood, Jr., Vulcan, Michigan.
Miss Elsa A. Winter, Antigo, Wisconsin.
Mrs. A. Presse, Ishpeming, Michigan.
Thomas J. Bernardin, Bessemer, Michigan.
Miss Loretta Truckey, Garden, Michigan.
Mrs. John Hansen, Ontonagon, Michigan.
Mrs. Fred Saunders, Marquette, Michigan.
Mrs. Hjalmar Erickson, Cloquet, Minnesota.

Packages of Golden Cup Coffee, with our compliments, were also sent to the following who received Honorable Mention in the great contest:

Mrs. Charles Minor, Sturgeon Bay, Wisconsin.
Miss Marie Anderson, Two Harbors, Minnesota.
Mrs. Albin Heikkila, Wakefield, Michigan.
Mrs. Eltha Brewer, Laona, Wisconsin.
Mrs. F. X. Fontaine, Escanaba, Michigan.
Mrs. Nelson Phenex, Manistique, Michigan.
Miss Freda Thorpe, Stephenson, Michigan.
Harry Allard, Menominee, Michigan.

The Carpenter Cook Company

Exclusive Distributors of Golden Cup Coffee

MENOMINEE

ISHPEMING

IRON MOUNTAIN

IRON RIVER

(Golden Cup Coffee is roasted and packed by the Michigan Coffee & Spice Co., of Menominee, Michigan.)

NORTHERN HARDWARE AND SUPPLY COMPANY

MENOMINEE, MICHIGAN

Our Cloverland warehouses are so situated that we are able to make prompt deliveries on all kinds of General Hardware and Mill Supplies.

Car Wire
Logging Tools
Roofing, Smooth Surface or Slate
Steel Bars
Chain
Wire Rope
Pipe and Fittings
Pumps
Hoists
Block Tackle
Dynamite
Blasting Caps
Blasting Fuse
Blasting Wire
Belting
Barn Door Fixtures
Stalls and Stanchions
Litter Carriers
Galvanized Sheets
Wire Stretchers and General Hardware
Automobile Accessories

We don't want to sell you anything unless we have what you want and what you need. We believe our stock will cover your requirements.

Write for Prices

Long Distance Telephone 400

MENOMINEE

MICHIGAN

The Splendid Service and the Great
Harnessed Water Power of

M. and M.
Light & Traction Co.

have made Menominee the Power City of
Cloverland, and Menominee County the
best lighted county in the Northwest.

The Leaf Hopper Control in Cloverland

By R. N. KEBLER

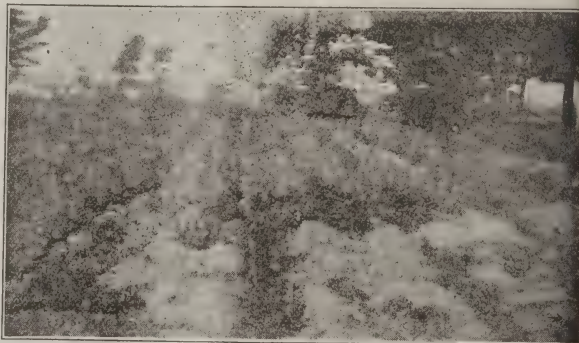
IN AN endeavor to secure some practical information of leaf hopper control in Upper Peninsula conditions, the Menominee County Agricultural school conducted a series of experiments on Green Mountain and Rural Russet potatoes during the last summer.

Two acres were planted on sandy loam soil on May 29. The land used for planting was taken from a portion of the field where soil conditions were uniform. This two-acre plot was di-

vided into four areas, which for simplicity will be called field "A," "B," "C," and "D."

Field A showed some tip burn injury the last week in July, but nothing pronouncing occurred until the last week in September, when observations showed the field to be about half dead with the tip burn injury.

Fields B and C remained green until the potatoes were ripe, and the



No Spray on This Field, Except for Bugs. (Sept. 12, 1920.)

vided into four areas, which for simplicity will be called field "A," "B," "C," and "D."

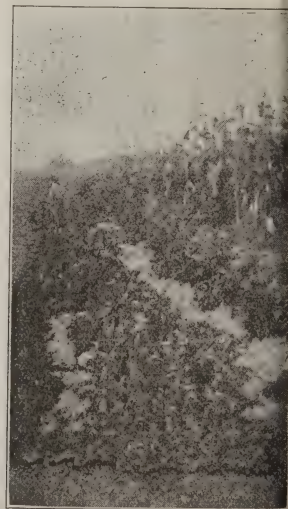
Field A was treated with bordeaux mixture in the proportion of four pounds of lime, four pounds of copper sulphate, and fifty gallons of water, (4-4-50). Field B was treated with bordeaux mixture (4-6-50). Field C was treated with nicotine sulphate (Black Leaf Forty), in the proportions of 1-800. Field D was left as a check plot.

Arsenate of lead was added to the first and third sprays to control the bugs and was also used on the check plot so as to make the experiment one of leaf hopper control only.

Spraying operations began when the potatoes were about six inches high, and an application applied about every two weeks thereafter, weather conditions permitting. The leaf hopper put in an appearance about the third week in June and tip burn began

vines died down naturally. Although they did show some tip burn injury it did not seem to affect the plant seriously.

Field C, treated with nicotine sulphate, had a much healthier green color throughout the summer than did the field sprayed with 4-6-50 bordeaux.



Treated with Nicotine Sulphate or Black 1-800. (Sept. 12, 1920.)



Treated with 4-6-50 Bordeaux Mixture. (Sept. 12, 1920.)

The photographs accompanying this article were all taken on Sept. 12, 1920, and show the relative condition of the four fields at that time.

The yield of potatoes in field A was fifty-one bushels, half of which were just about marketable size; field B eighty bushels, nearly all marketable size; field C, eighty-two bushels, nearly all marketable size; field D, thirty-three bushels, a few of which were of marketable size, showing that the re-

itive yield is in accordance with the damage done by the leaf hopper.

It should also be kept in mind that these potatoes were grown on a very sandy loam, a factor which will account for the comparatively low yield or Upper Peninsula conditions.

The above results seem to indicate that 4-6-50 bordeaux is quite as effective as nicotine sulphate. It should be kept in mind, however, that the lime in the bordeaux mixture acts as a repellent to the hopper, while the nicotine sulphate is a contact spray, namely, one that must strike the in-

sect before it will kill. Due to the fact that the lime in the bordeaux acted as a repellent, many of the leaf hoppers likely left the field and went to the check plot, a factor which would increase the injury done in the check plot over the leaf hopper under ordinary field conditions. The addition of this small amount of lime to the 4-6-50 bordeaux pays for itself many times over, and it seems that if the lime acts as a repellent, it might be a wise move to use 4-8 or even 4-10-50 in spraying for the hopper.

The experiments seem to indicate that the sprays applied about three days after the first appearance of the

Another feature of the experiment which was very noticeable was the resistant power of the Rural Russet potatoes from leaf hopper. Rows of



Field Treated with Bordeaux 4-4-50. (Sept. 12, 1920)

Rural Russets in the same fields with the Green Mountains remained green much longer than any of the Green Mountains, and yielded a lot better.

Observations seem to prove that late planting of potatoes, about June 15, are subject to very little, if any damage from the leaf hopper; due to the fact that the hopper attacks the earlier planted potatoes and does not molest the late crop. This seems to be the most practical method to pursue so far as cost is concerned, but if everyone in the community planted their potatoes late, it would be hard to tell what the effect of the leaf hopper would be.

Rusk County Clearing Drive

(Continued from page 9)

as these cogs are meshing properly all goes well but the minute one of these cogs forgets the part he has to play in this great machine, the teamwork is shattered and results are uncertain. It is for every Cloverland farmer to keep this teamwork moving, and for Rusk County, a team-member that this year accomplished a great feat, Mr. Packer predicted a glowing future.

Among the visitors outside of Rusk

County who were in attendance at the Progress Day celebration were Dean H. L. Russell, C. P. Norgord, B. G. Packer, Madison; Senator E. H. Everett, Racine; L. F. Livingstone and A. Mathewson, Wausaukee; John Sweeney and A. P. Sherwood, Bayfield; E. G. Quamme and F. S. McCabe, St. Paul; H. S. Funston, F. W. Curtis and C. E. Martin, Minneapolis; B. F. Faast and Major Atkinson, Eau Claire; R. M. Andrews, Menominee, Mich.; Albert Fiedler, Holcombe, and J. W. Hicks, Prentice.

Bay Cliffs Stock Farm

JAY B. DEUTSCH, the well known lumberman of Marquette County, Mich., practices what he preaches. Among the first men of Cloverland to realize the future that cut-over lands had in store, not only did he join the ranks of the boosters, but started actual farming operations near Big Bay, Mich., on some of his acres of former timber land.

Today the Bay Cliffs stock farm gives precedence to no modern establishment in upper Michigan, and in the breeding of registered Guernseys Mr. Deutsch has enjoyed heralded success.

On the subject of his deep interest in pure-bred cattle for Cloverland, he states:

"At the present time I have eight cows on test and all of them are making satisfactory records. One cow, Esther's Betty of Kentrevor, is milking fifty to fifty-five pounds of milk per day, which is a very creditable record for a Guernsey cow."



"Stew"



International Farm Machine Headquarters

TODAY the country roads lead from millions of farm homes to the establishments of the International Dealers—and back again to the fields. Quality machines, fair dealing, and a matchless service policy form a triple foundation that has made the store of the International Dealer an **essential** institution in any community. Choose your farm equipment there — and **standardize** your machines as you would your cattle, hogs, and poultry. This is the safe course, with many benefits. Then you may take quality and efficiency for granted and rely on your dealer and on us for service and help at any time, in any emergency. The International Dealer will help you stock your farm with thoroughbred machines.

INTERNATIONAL HARVESTER COMPANY
CHICAGO OF AMERICA USA
(INCORPORATED)

Branch Houses:

GRAND RAPIDS, SAGINAW, DETROIT, Michigan
GREEN BAY, EAU CLAIRE, Wisconsin
ST. CLOUD, Minnesota



Land like this will GROW CROPS!

YOU have some land like this on which you are paying taxes and getting no returns. Make it produce. Get the stumps out with



RED CROSS 20% DYNAMITE

the greatest time-saver, labor-saver and money-saver known for land clearing, and have more acres ready for the plow and ready to bring in money.

Clear More Land in 1921

This state cleared more cut-over land in 1920 than ever before in its history—and 1921 will show even a greater acreage reclaimed and put under cultivation, largely through the use of dynamite.

Make your plans NOW—many of your neighbors figure on cleaning up more acres this spring than ever before. Keep pace with them.

See your local dealer next time you are in town. Write for our free Farmers' Handbook of Explosives. It's valuable.

E. I. du Pont de Nemours & Co., Inc.

McCormick Building
Chicago, Ill.

Hartley Building
Duluth, Minn.

WHEN IN THE MARKET FOR Registered Guernseys

—WRITE OR WIRE—

BAY CLIFFS STOCK FARM

BIG BAY, MICH.

J. B. DEUTSCH, Owner

MENOMINEE SAW CO.

MENOMINEE, MICHIGAN

MANUFACTURERS OF



SHINGLE
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SAWS

GANG
MITRE
GROOVING
CROSS CUT
DRAG
MILLING

Fully Warranted

SAW REPAIRING OF ALL KINDS

A Truly Great Cow

PEARL'S Dot 57445, a five year old Guernsey cow owned by Shorewood Farm, Crystal Bay, Minnesota, produced in a trifle more than three years, without a single day's rest period, three living calves, three Advanced Register records averaging 12053.5 pounds of milk and 532.36 pounds of butter fat. Her three records are as follows:

Pounds of Milk	Pounds of Butter Fat	Class
9820.8	531.66	GG
11695.5	512.29	EE
14644.1	753.12	C

The first record placed her third in her class, the second made her champion of all three year old Guernseys in the Roll of Honor, and had she produced twelve more pounds in the last record she would have qualified for a place among the class C leaders. She now holds ninth place in class GG and second in class EE.

While Pearl's Dot 57445 was making her two first records she was capturing highest honors at several of the biggest fairs and dairy shows. In 1918 she was first prize three year old cow, and first prize Junior Advanced Register cow at the Dairy Cattle Congress in Waterloo, Iowa. At the National Dairy Show of the same year she repeated the winnings made at Waterloo.

Pearl's Dot 57445 was sired by Langwater Royal 14253, an Advanced Register son of Imp. King of the May 9001. Her dam is Gerar Pearl 23595 that completed four Advanced Register records, averaging 9996.6 pounds of milk and 484.28 pounds of butter fat, before she was nine years of age.

The Shorewood cow is a full sister to Earl of Pomeroy 40325 with records of 618.65, 583.67 and 777.16 pounds of butter fat in classes D, AA, and AA; also to Royal's Pearl 45209, with records of 485.88 and 788.37 pounds of butterfat in classes G and D.

The Small Town's Part

THE country town is a part of the country. It is one of the encouraging signs of the times that country town business men are coming to realize this. It has not been so long ago that every little town thought that its business was to grow into a city, just as soon as possible. Some towns and many town people still think so. Many small town people, too, still think that their chief relations and interests are with the cities rather than the country. The most farseeing business men have come to know better. They are seeing more and more clearly that the town, the small city, is an integral part of the country, that it prospers only as the country prospers, and that it has its place in the scheme of things to be the life center of the country about it. The town merchant who opposes co-operative buying or selling by the farmers of his territory, the town banker who would hinder the establishment of farm loan associa-

tions in his county, the town editor who neglects the interests of the back country districts, are becoming more and more out of date.—Southern Agriculturist.

IT'S HARD TO KEEP COWS CLEAN

when they are stabled, but clipping makes it easy. Take only five minutes a month to clip flanks and udder of each cow, then wiping with a damp cloth quickly cleans before milking. Keeps dirt and filth out of the pail. Clipped cows give better and cleaner milk. The Stewart No. 1 Machine is best. Clips horses also. Only \$14 complete at your dealer's, or send \$2 and pay balance on arrival.

CHICAGO FLEXIBLE SHAFT COMPANY,
Dept. A-150, 5600 Roosevelt Road, Chicago, Ill.

Maple Grove Stock Farm

This flock has been bred up carefully for forty years, and representatives of the flock have shown at the fairs since the first importation in 1880.

R. J. STONE'S SONS
Stonington, Ill.

A CONVALESCENT

should not only have the purest of foods, but the dainties which are allowed should be most palatable.

Van Duzer's Certified Flavoring Extracts

are made of the finest fruits and are absolutely pure. They impart a delightful true fruit flavor.



Van Duzer Extract Co.
New York, N. Y.
Springfield, Mass.

AUCTION SALE

Purebred
ABERDEEN-ANGUS CATTLE
by the
MICHIGAN ABERDEEN-ANGUS
BREEDERS' ASSOCIATION

—at—
MICHIGAN AGRICULTURAL
COLLEGE, E. LANSING, MICH.,
on Jan. 14th, 1921.

45 head of exceptionally good cattle from the leading herds in the state. Cows that will make wonderful foundational material and bulls of herd heading quality sired by some of the most noted bulls of the breed.

Michigan Aberdeen-Angus Breeders' meeting and banquet at the Wentworth Hotel on the evening of the 13th. All are invited.

For catalogs and further information write Ward Hathaway, Sec. Mich. Aberdeen-Angus Association, Ovid, Mich., or Dr. K. J. Seike, Eastern Representative Am. Aberdeen-Angus Association, Ithaca, N. Y.

Shorthorns Profitable

The change that has come over the cattle business emphasizes more than ever the value of the Shorthorn in making the business successful. The Shorthorn has demonstrated over and over again that from 200 to 300 extra pounds are produced at maturity. It is these additional pounds that represent often the net profit. But the quality of Shorthorn beef has long since commanded a premium at the markets and when the extra weight and the quality are combined the grower has his best assurance of profit. Under present conditions the maximum results are needed and the Shorthorn has demonstrated in this respect.

Use a Shorthorn bull. If you are not ready to add purebred females obtain as high a grade Shorthorn females as possible. The more Shorthorn blood they carry the better.

More farmers and ranchmen are looking for Shorthorns today than ever before for the simple reason that the Shorthorn is making good.

American Shorthorn Breeder's Association

13 Dexter Park Ave.

Chicago

Ask for Literature.

Man's Four-footed Friend

(Continued from page 6)

eeding. That means feeding for bone, muscle and brain and not for fatty degeneration.

Has the U. S. a clayey soil over a calcareous subsoil? Has it plenty of water? Do the grain crops flourish? Are its green crops of the best? Is its climate temperate and has it or can it have a good quality of grass? If it has all these then by the use of the intelligence of its farmers, it can have a Percheron horse which shall surpass the Percheron of France.

One of the first great cares of the invaders and defenders of Belgium was to secure the draft horse stock. The invaders carried off all which they overtook. The defenders preserved all those that escaped the debacle.

In the draft breeds mentioned, you will note that some infusion of Flemish blood has been used in the improvement of the horse stock of all countries. The Belgians have furnished most of the mass and most of the size. The climate of Belgium has been particularly conducive to the evolution of a heavy though rather loche horse. Belgian soil is high in phosphates. The country is low and damp toward the sea, rising through fertile sections in the central parts to a sandy and hilly country in the south. The average temperature is higher than that which we experience in Cook County. Portions of the United States are well situated for conserving, preserving, and improving upon the horse

which came originally from Belgium, a horse whose blood lines have been drawn upon for centuries by all nations of the world. Even the horses of Russia owe their size, quality and other good draft points to the transport horses which the Cossacks captured from Napoleon during the retreat from Moscow in 1812.

Last year's International Live Stock Show was a real American breeder's show. There were present more good colts born in America than had ever been seen before. If American breeders can make such an improvement in their horses during a three year war period in Europe, it would be a Godsend if no more horses were imported from Europe for the next ten years. The Americans would evolve a breeding stock of their own, having American peculiarities and American improvements on the foreign breeds. The foreign breeds are, doubtless, the best for the places in which they are raised but too close adherence to foreign types may develop defects among native horses. The Clydesdale for Scotland, the Shire for England, the Suffolk in his own county, the American Clydesdale, Shire or Suffolk developed along American ideals for that particular state or that particular county, district or region for which he is suited in America. The same applies to the Percheron, the Belgium, the Cleveland Bay, the Boulonnais, the Ardennais, the Breton, and all the other imported breeds of horses.

Apple Grading Law Brings Results

MARKED improvement in the quality of Wisconsin apples as the result of the grading law passed in 1917 is described in the report on the administration of this work made by Dr. S. B. Fracker, state entomologist, to the commissioner of agriculture.

As a result of the administration by the State Department of Agriculture of the law requiring the grading of apples during the past three years practically the entire commercial crop of 122,000 barrels has been carefully packed and branded as required. The campaign was begun in 1917 as an educational one to carry the best information to the growers on modern methods of packing and grading fruit. Market conditions had been most unsatisfactory as buyers would not take apples from unknown owners without seeing them. Local packing houses were paying the growers such low prices that the orchards were unprofitable and every temptation was offered to "face barrels" improperly or sell "culs" as first class fruit. In fact, the difference in price between good and

poor quality apples was almost negligible in many districts.

The standards defined in the grading law have made the quality of fruit the first consideration and put a premium on the use of careful pruning and spraying in its production. This has resulted in a general improvement in the quality of Wisconsin apples with a corresponding increase in their ability to meet western competition.

An orchard survey was carried on in 1919 in connection with the work, which showed definitely the location of the commercial orchard districts, the nature of the markets in the various parts of the state, and the varieties of apples grown. This laid a valuable foundation for the future administration of the statute.

During 1920 it was decided to discontinue the educational and survey features and confine the campaign to law enforcement. Little attempt at evasion was discovered, however, and with the exception of the one case which is being taken to the courts, practically the entire crop has been carefully packed and marketed.

Egg Marathon for Michigan Hens

AN all-year egg laying test, with pens from the leading poultry flocks of the state entered, was opened at the Michigan Agricultural College on November 1 and will run until October 31, 1921. Many farmers and poultry breeders were invited to ship selected pullets to the college for official trap nesting, and the test is expected to give a line on the merits of the foremost flocks in Michigan.

"Weekly reports on the performance of all fowls under trap are being sent to each owner," says Prof. C. H. Burgess, head of the poultry department at M. A. C. "At the close of the year these fowls which are found to be heavy egg producers will be returned to the community from which they come. Along with the pen will be sent a good male of known breeding. In this way a foundation can be laid that will materially raise the standard of quality among flocks of the state."

A much better grade of fowls is raised on the average farm of the state today than could have been found a few years ago, the producing power of the farm flock having been raised ma-

terially. An intensive poultry culling campaign which has been carried on in more than sixty counties of the state by the Poultry Department at the Michigan Agricultural College is held responsible for the improvement.

Proper housing and good feeding have been factors that have gone hand in hand with the selection work in raising the productive ability of Michigan hens, with the result that the state now ranks high in regard to the quality of its general farm flocks.

The Way to the Sea

SMALL states in Europe thrive or die as the way to the sea is open or closed to them.

The life of our own western states in its fullness depends on their having an open way to the sea.

If it was closed they would die. If it is hampered the top of their production is throttled down.

The good of the nation is the good of every section.

Grape-Nuts

*The Cereal
That Needs No Sugar*

Healthful, substantial and full of sturdy nourishment. A food of delightful flavor, eatable to the last atom.

Sold by grocers everywhere!

Choice Cut-Over Hardwood Lands

Especially adapted to grazing and general farming, located on trunk line railways twelve hours from Chicago markets. For sale, in small or large lots, at reasonable prices, terms to suit purchasers. For particulars write

The Northwestern Cooperage & Lumber Co.

GLADSTONE, MICHIGAN

Northern State Normal College

MARQUETTE, MICH.

New Buildings

Excellent Equipment

Splendid Faculty

College Courses leading to A. B. degree—Normal School Courses for teachers of all classes—Special Courses in Art, Music, Manual Training, Home Economics, Kindergarten and Commercial.

The school has had more calls for teachers than it can supply
Write for information and bulletin

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POPULAR
POTATO
LANTER

The Keystone
Hand Drop Planter

Getting 100% value from high-priced seed and land by securing the utmost yield possible is one of vital interest to the producer of potatoes. This can be accomplished by use of the Keystone Potato Planter.

Simple, strongly made, durable. The rear pressure wheel presses the soil over the seed so that the moisture is retained and the seed sprouts promptly and comes up in much more vigorous manner than where the earth is left loosely over the potatoes.

No bruising of seed and every piece containing an "eye" should grow.

Secure catalog from

A. J. PLATT, Manufacturer
Sterling, Illinois

FARM LANDS

I am a farmer myself, work a 1,200-acre farm each year, so I know what farming land is. I know what a farmer wants. I have a large acreage of unimproved farm land for sale and guarantee satisfaction.

Write to me.

J. W. Weston

Proprietor,

Oak Ridge Dairy

WAKEFIELD, MICHIGAN

Northern Minnesota Lands are-



LOW PRICED-NOT CHEAP



Write Me for Reliable Information About These Lands

J. S. ARNESON, Commissioner of Immigration
STATE CAPITOL ST. PAUL, MINN.

Potato Records Are Broken in Oneida County

By C. P. WEST

ONEIDA COUNTY'S annual potato show, which was held at Rhinelander, Wisconsin, November 10, presented the largest exhibition of high grade tubers ever seen in this part of Wisconsin. Fifty exhibitors were represented and every variety of potatoes

responded, thanking the Advancement Association for its interest in the show. In the course of his remarks, Mr. Weatherly said: "Twenty years from now if you take agriculture away from Rhinelander, the city will not amount to anything. There is no future for Rhinelander except through



"Ready Money" Field of Cloverland Spuds

own in this section was on display. W. Jones, president of the Rhinelander Advancement Association, made address of welcome to the growers, he declared that the association would co-operate in every way possible with the farmers of the county. F. Weatherly, president of the county Potato Growers' Association,

agriculture, and I think the main line of agriculture for this community is the growing of potatoes.

George W. Hull, president of the State Federation of Farm Bureau, gave an interesting talk on marketing problems as met by co-operation of farmers.

Angus McDonald, state potato in-

RED CROWN Gasoline line is made especially for automobiles. It will deliver all the power your engine is capable of developing. It starts quickly, it accelerates smoothly, it will run your car at the least cost per mile, and it is easily procurable everywhere you go.

Standard Oil Company
(Indiana)
Chicago, Ill.

Your Trade is What You Make It

If you conduct your business with the idea that you want cheap trade, you will create it. Perhaps it may even become so cheap you will be glad to move.

The grocer who builds for the future on a foundation of stability, takes especial pains to display and advocate such worthy, dependable products as

ROYAL Baking Powder

Absolutely Pure

Made from Cream of Tartar, derived from Grapes

It pays in more ways than one to sell Royal.
A grocer's best asset is a satisfied customer.

spector, explained the new inspection work and its benefit to the growers and shippers.

C. P. West, county agricultural agent, also gave a brief address on the potato industry.

G. M. Housholder, assistant director of immigration, of Madison, spoke on the agricultural progress of upper Wisconsin. His talk was illustrated by motion picture scenes of farm life in the northern counties. This part of the program was one of the features of the show.

J. W. Brann, of Madison, state certified seed inspector, acted as judge at the show. He stated that the exhibits were all of such a high order that his task was by no means an easy one. Some of the prize winning potatoes will be taken to the Mid-West Horticultural Show at Council Bluffs, Iowa, which is held November 15 to 20. This display will be in charge of Mr. West. These potatoes will also be shown in the Oneida County booth at the Wisconsin State Potato Show in Milwaukee, November 30 to December 4th.

The following prize awards were made by the judges:

Green Mountains: First, Chas. Peterson, Rhinelander; second, W. P. Jewell, Rhinelander; third, Herman Schoeneck, Enterprise.

Rural New Yorkers: First, Starks Farm, Three Lakes; second, Carl Gustafson, Rhinelander; third, Herman Schoeneck, Enterprise.

Triumphs: First, Carl Gustafson, Rhinelander; second, Ernest Juntgen, McNaughton; third, Herman Schoeneck, Enterprise.

Early Ohio: First, Herman Schoeneck, Enterprise; second, Paul Davis, Rhinelander; third, Wm. Priebe, Rhinelander.

Irish Cobblers: First, Paul Davis, Rhinelander; second, Emil Hack, Rhinelander; third, Herman Schoeneck, Enterprise.

Any Other Variety: First, Carl Gustafson, Rhinelander; second, Herman Schoeneck, Enterprise.

Grand Sweepstakes: First, Chas. Peterson, Rhinelander; second, Starks

Farm, Three Lakes; third, W. P. Jewell & Sons, Rhinelander.

Largest and Smoothest Potatoes: First, H. E. Stone, Rhinelander; second, C. B. Howe, Rhinelander.

Person Bringing Potatoes Longest Distance: Hans Peterson, Clearwater Lake.

Ten Bushel Class: First, Paul Davis, Rhinelander; second, W. P. Jewell, Rhinelander; third, H. E. Stone, Rhinelander.

Minnesota, Land of Certainty

(Continued from page 5)

Minnesota is estimated at approximately 2,500,000. It is now approaching the full tide of its prosperity. Her progress is substantial as well as rapid. Towns and cities are full of life and enterprise. New manufactures are springing up constantly throughout the state. The farmers are contented and prosperous. Railroads reach every portion of the state and a system of permanent highways recently stimulated by the passage of the good roads amendment, is under way. The climate is unsurpassed for healthfulness. With a mean annual temperature of 45 degrees and a mean summer temperature of 70 degrees, with a soil unparalleled in its yield of stable products, vast stretches of timber and unlimited water power, Minnesota is unquestionably destined to fulfill her prophecy to become in population, wealth and influence, among the very foremost states of the American Union.

Cloverland grass fat lambs, wethers and ewes have topped the market. "Nough said about the 'feed on the ground'" in Cloverland.

Discussing the merits of certain breeds of cattle is like trying to arrive at a common understanding as to the best pie for dessert.

Cloverland Bargains

RATE: Seven Cents a Word

Copy for the Cloverland Bargains column must be in the office not later than the fifteenth of month preceding publication. Address all want ads to the CLOVERLAND MAGAZINE, Cloverland Bargains Dept., Menominee, Michigan

REGISTERED HOLSTEINS FOR SALE.
Three of the best cows in Vilas County at a very low price if taken at once. Polly Vilas Gerben No. 24642 H. T. H. B.; Daisy Fern Gerben No. 427883 H. T. H. B.; Dotty Lake Gerben No. 427884 H. T. H. B. Also some yearling heifers. For prices and information write, Chas. R. Gerner, Phelps, Wis.

HONEY—Best Michigan clover. Ten-pound pall parcel post, \$3.90; five-pound pall, 2¢. Cash or C. O. D. B. F. Kindig, East Lansing, Mich.

A WONDERFUL BARGAIN—680-Acre tract of choice cut-over land, clay soil, free from stones and very easily cleared, a few miles north of Ewen, Ontonagon County, Michigan. Must sell at once regardless of price. H. Lilliquist, Ironwood, Michigan.

WANTED—Position as working manager with someone on large tract of land to be developed into a live stock farm. Have had an agricultural college training and life-time experience on large live stock and grain farms. Prefer to work on salary and percentage basis. Will invest some in good proposition. Best of references. Address, Box 84, care Cloverland Magazine.

WANTED—Position as farm manager or tenant on good farm. Have had considerable farm experience and can take care of dairy, cattle, horses and pigs. Have one large boy and three smaller boys—a family of wife and five children, all experienced in large garden work and some farming. Write at once. William Pittsley, Carter, Wisconsin.

FARMS WANTED—To sell your real estate, business or patent quickly for cash, write Northwestern Business Agency, Minneapolis, Minn.

SHEEP for Cloverland farmers. Will place ewes on shares with reliable farmers and give you an opportunity to start in the sheep business and at the same time make money. If you want to buy sheep, write us for prices. Can arrange satisfactory terms. Cheever, Buckbee, Pres. Cloverland Sheep Corp., 719 Ludington St., Escanaba, Mich.

IMPROVED FARM—100 acres, one-half mile of lake shore, good house, stone basement, mile from town on good road, 20 acres cleared, 40 acres fenced, quantity valuable cedar and birch, price includes crop, 10 acres potatoes, 10 of oats. \$6,500. Fred L. Brown, Mercer, Wis.

WANT TO HEAR from party having farm for sale, give particulars and lowest price. John J. Black, 177th St., Chippewa Falls, Wis.

FRED Wisconsin Bulletins—Soil, climate and crops. Immigration Bureau, Wis. Dept. of Agriculture, Capitol 5, Madison, Wis.

OCONTO COUNTY, WISCONSIN—The Garden Spot of the Upper Peninsula. Interested you should at once become acquainted either by way of a visit in person or correspondence with me relative to my most unexcelled bargains, of either improved or unimproved hardwood timber farm lands. The best quality of productive clay loam soil, with excellent climate conditions produce unfailing big crops of diversified grains, alfalfa, clover, sugar beets, potatoes, fruits. Dairying very highly developed, the best of modern environments by way of church, school, cheese factory, grain and live stock markets, improved farms immediate to hand. At bargain prices these opportunities. If interested better act at once for prices are destined to enhance in value rapidly. Charles A. Best, Oconto, Wis.

LANDS FOR MIXED FARMING AND GRAZING—In Marquette and Alger Counties, Mich. Cut-over Hardwood Timber Lands, suitable for General or Special Farming, Stock Raising, etc. Excellent Water. Soil of Rich Sandy Loam. Exceptionally Liberal Terms. Also some choice Tracts in Antrim and Emmet Counties. Write at once for our Beautiful Illustrated Booklet. Jackson & Tindie, Inc., 503 Niagara Life Bldg., Buffalo, N. Y.

CLAY BOTTOM LANDS FOR SALE—In Mackinac and Chippewa Counties, suitable for grazing purposes. Can be bought on partial payment plan. Write Wilwin Company Limited, Wilwin, Mich., for particulars.

TWO MICHIGAN BARGAINS—80 acres. House, barn, clearing. Near Paynesville. \$1,250, \$250 down \$800 cash. Ewen, \$1,200; \$200 cash. Both on roads. Good land. Wm. Hardy, owner, Waukesha, Wisconsin.

FOR SALE—3,500 acres in one block. Seven miles north of Oconto. A low price will be accepted for the whole tract. W. H. Grunert, Green Bay, Wis.

A FINE FARM FOR SALE—280 Acres, one mile west of Carney, Michigan, which has good schools and a creamery, 150 Acres of this land is cleared. Has a good house and hay barn and small orchard, plenty of running water all the year. Uncleared land is well seeded to grass; the soil is clay loam. There is not an acre of poor land in the farm. Easy terms. Address Box 58, care Cloverland Magazine.

HAY—Write or wire us whenever in need of Clover or Timothy Hay; also Straw, in carload lots. Dafter Hay & Grain Co., Dafter, Michigan.

FOR SALE—250,000 acres of unimproved cut-over lands in tracts to suit purchaser. Prices \$5 to \$15 an acre, terms reasonable. Address J. M. Longyear, Marquette, Mich.

FOR SALE—Choice cut-over hardwood lands, especially adapted to grazing and general farming. Small or large tracts at reasonable prices, terms to suit purchaser. Northwestern Cooperage & Lumber Co., Gladstone, Mich.

FOR SALE—2,000 Acres land in one block. Excellent soil. Well located by road, terms attractive. Write Fred A. Roper, Menominee, Michigan.

FOR SALE—One fine 3,200 lb. team, bay geldings, 6 and 7 years old; gentle, experienced farm team; includes heavy farm harness in A-1 condition; price \$450. One grade cow, half Jersey half Guernsey, 8 years old, gentle as a lamb, milks 14 qts. when fresh, freshens in July; price \$150. One 1913 Ford touring car, excellent mechanical condition, tires new; price \$450. One western saddle pony, rein broken, speedy, full of life, gentle; includes fine western saddle; price \$80. Ten tons A-1 clover hay; 25 tons clover and timothy mixed; baled; at market price. Address, W. B. Wallace, Lakewood, Wis.

WANT TO HEAR from party having farm for sale, give particulars and lowest price. John J. Black, 177th St., Chippewa Falls, Wisconsin.

FOR SALE—1,000 head of breeding ewes 2 to 5 years old. These sheep to be sold in lots to suit purchasers. Write for prices and further information. John Rachon, Kenton, Mich.

SHEEP FOR SALE—500 breeding ewes, 1 to 4 years old. Averaged 8½ lbs. wool this season. Lots to suit purchaser, \$10 per head. Teams if desired. Vail & Smith, Alvin, Wis.

FOR SALE—160 acres hardwood timber. C. W. Lightfoot, 910 Minn. Ave., Gladstone, Mich.

WAUKESHA FARM FOR SALE—56 acre highly improved farm in Waukesha Co., 14 miles from Milwaukee, 1 mile from Waukesha. Concrete road will pass farm, 10-Room brick house, hardwood floors and hot water heat, acetylene lighting system in house and barn. Basement barn 36x50, silo 12x26, all in good repair. This location suitable for general store, auto supply or hotel. Price \$14,000. Liberal terms to responsible party. Address John Casper, R 4, Waukesha, Wis.

80 ACRES, half under plow, level, good road, R. F. D. 2, phone, school on land, near cheese factory, milk route by door, nice stream, no stone, good buildings, best of soil, right price and easy terms. V. E. Conwell, Ladysmith, Wis.

HAMPSHIRE—Am offering my entire flock of breeding ewes, lambs and spring rams. Also Champion and third prize ewes of 1918 International. Write for catalog and special prices of carload lots. Mrs. Harley K. Emmons, Elsie, Mich.

FOR SALE—160-acre farm, ¼ miles from Ogemaw, Wis. 50 acres cleared, 28 under cultivation, good water, well fenced, ½ mile to school and from trunk highway. For terms and price write owner, J. Jones, Phillips, Wis.

FOR SALE—Pure bred Guernsey bull, 2½ years old; Sire, Mashier Rockingham dam, Carlton Chosan. Price, \$200, or will exchange for breeding ewes. Address Herbert Burrows, Emetta F. O., Lake County, Mich.

WANTED—Competent maid for general housework. Good wages. Mrs. T. J. Fath, 230 Main St., Menominee, Mich.

FOR SALE—Upper Peninsula cut-over lands suitable for grazing or general farming, in Alger, Chippewa, Gogebic, Luce, Mackinac and Schoolcraft counties. For information write, Land Department, Charcoal Iron Company of America, Marquette, Michigan.

FOR SALE—We own 15,000 acres of cut-over lands in Dickinson, Baraga, Menominee, Iron and Gogebic counties, in the Upper Peninsula of Michigan; 10,000 acres in Forest and Florence counties, Wisconsin. Any size tract on easy terms. J. W. Wells Lumber Co., Menominee, Mich.

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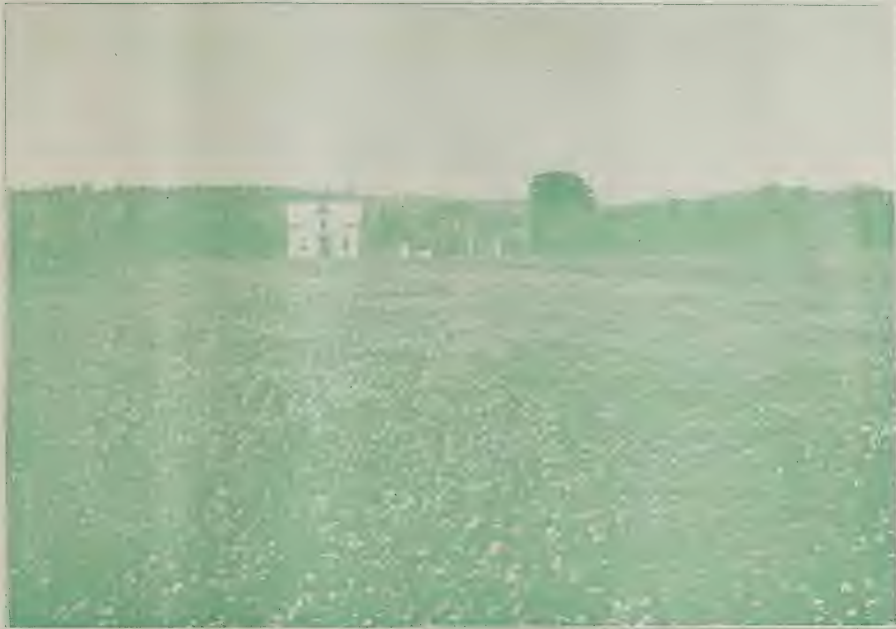
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